

CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE

WORKS UNDER HIS CONTROL

FOR THE

FISCAL YEAR ENDED MARCH 31

1921

Submitted in Accordance with the Provisions of Chapter 39, Section 34, of the
Revised Statutes of Canada

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1921

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*To General His Excellency the Right Honourable Lord Byng of Vimy, G.C.B.,
G.C.M.G., M.V.O., Governor General and Commander in Chief of the Dominion
of Canada.*

I have the honour to lay before Your Excellency the Report of the Department
of Public Works of Canada, for the fiscal year ended March 31, 1921.

I have the honour to be, sir,

Your Excellency's most obedient servant,

F. B. McCURDY,

Minister of Public Works.

OTTAWA, November 17, 1921.

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DEPUTY MINISTER.

CHIEF ARCHITECT.

CHIEF ENGINEER.

GENERAL SUPERINTENDENT OF TELEGRAPHS.

COLLECTOR OF REVENUE.

CHIEF ACCOUNTANT.

LAW BRANCH.

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REPORT
OF THE
DEPUTY MINISTER OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1921

DEPARTMENT OF PUBLIC WORKS, CANADA

OTTAWA, October 5, 1921.

Honourable F. B. McCURDY,
Minister of Public Works,
Ottawa, Ont.

SIR.—I have the honour to submit the report of the Department of Public Works for the fiscal year ended March 31, 1921.

EXPENDITURE

The total expenditure incurred by the department during the fiscal year 1920-21, on its various works of construction, maintenance and operation amounted to the sum of \$20,970,674.31, of which the sum of \$1,217,892.07 is charged to Demobilization. The details of this outlay may be classified under the following subdivisions:—

Harbour and river works.. . . .	\$7,541,667 50
Dredging, plant, etc..	1,456,242 90
Roads and bridges.. . . .	196,209 13
Public buildings.. . . .	8,443,892 20
Telegraphs.. . . .	1,083,242 05
Miscellaneous.. . . .	1,031,528 46
Total.. . . .	\$19,752,782 24
Demobilization.. . . .	1,217,892 07
Grand total.. . . .	\$20,970,674 31

As compared with the total for the previous year, even with a reduction in the war expenditure of over \$3,000,000, there is an increase of \$515,214.46 due principally to the expenditures made on harbour and river works at Courtenay Bay, St. John, N.B., Toronto, Fort William and Port Arthur, Ont., and Esquimalt, B.C., where the most important works of this class are in progress; an increase in the cost of dredges and dredging operations of about \$250,000, and in telegraphs of nearly \$200,000, while expenditures on other works remain about the same as last year.

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REVENUE

The revenue for the year amounted to the sum of \$725,129.30 and is made up as follows:—

Graving docks.. . . .	\$ 64,918 15
Rents.. . . .	128,148 20
Telegraphs.. . . .	330,470 43
Casual revenue.. . . .	199,582 85
Ferries.. . . .	2,009 67
	<hr/>
	\$725,129 30

The total revenue increase over the fiscal year 1919-20 is \$92,039.04 and consists of \$52,721.48 from telegraphs of which \$27,634.52 was from British Columbia lines; \$20,920.97 from Yukon; \$2,706.28 from Cape Breton; \$4,843.21 from the North Shore lines east of Bersimis, but there was a falling off of \$4,814.61 in the northwest. Casual revenue shows an increase of \$118,509.98, accounted for principally by an amount of \$101,455 received from the sales of old buildings and lands. There is a decrease in revenue from the graving docks of \$16,229.44 as a result of the difference in the length of dockages in the Lorne dock.

HARBOUR AND RIVER WORKS

The total expenditure in this branch of the Department of Public Works was \$7,541,667.50, which is \$3,221,086.58 greater than last year's outlay, in view of the prosecution of the scheme of development in some of the more important national harbours.

The following is a list of works which have been completed during the year:—

Nova Scotia.—Barrington Passage, wharf; Boisdale, new wharf; French River, wharf; Irish Cove, wharf; Kelly's Cove, block; Livingston Cove, block, and Shenacadie, wharf.

Quebec.—North Timiskaming, wharf, and Notre Dame des Sept Douleurs, extension to wharf.

Ontario.—Kagawong, new wharf; Union bridge between Ottawa and Hull, and bridge at North Timiskaming.

Manitoba.—Hecla wharf and Le Pas wharf.

British Columbia.—Campbell River, new float; Churchhouse, new float; Graham's Landing, wharf; Hollyburn, ramp; Hurst Island, float; Jericho Beach, float; Kuskanook, float; Naramata, wharf; Princess Creek, float; Proctor, float; South Gabriola Island, wharf, and Stewart, new wharf.

The following works were under contract, but unfinished at the end of the fiscal year:—

Nova Scotia.—Bass River, wharf.

Prince Edward Island.—North Lake, boat harbour.

New Brunswick.—Courtenay Bay, breakwater, dredging, dry dock, etc., and Lord's Cove, wharf.

Quebec.—Champlain, dry dock.

Ontario.—Fort William, revetment wall; Port Arthur (Bare Point), breakwater; Little Current, wharf, and Toronto harbour works and island breakwater.

Alberta.—Banff bridge on the Bow river.

British Columbia.—Esquimalt dry dock.

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DREDGING

The sum expended under this heading amounted to \$1,456,242.90, which is \$250,756.97 in excess of the outlay of the previous year

Shipping by water continued to increase towards its normal activity and, as far as possible, the department met the demands for dredging necessary to restore and maintain the required depths and widths in channels and harbours. The year saw the cost of labour and material reach the peak, and this increase is reflected in the cost of the various works.

Only such works as were considered of urgent importance in the public interest were carried out, and there were consequently a number of units of departmental plant not in commission. A number of these units were leased to private parties at considerable gain to the Government. In this way valuable units have been maintained at no cost to the department, but will be available for use when, as is expected, the water-borne commerce of the Dominion increases to such an extent as to warrant the Government meeting legitimate demands for increased facilities.

One small dredge was built for the improvement of navigable waters in the areas of northern Quebec made accessible by the Transcontinental railway. One dredge, four tugs and seven scows which had outlived their usefulness were disposed of. Tug *Hecla* was transferred to the Fisheries Branch, Marine Department, and other items not in commission by this department were loaned other departments, as required.

In British Columbia, operations were continued at the mouth of the Fraser river, and the channel of the North Arm of the Fraser river was dredged. Work was also done at Powell river, at Nanaimo, at William Head, at Shoal passage and Howe sound, and in removing Discovery rock, Victoria harbour. The channel of the Columbia river, between Upper and Lower Arrow lakes, was improved.

In Manitoba, navigation was maintained in the Red river, and at points on Lake Winnipeg. Dredging of a channel to the wharf at Le Pas was prosecuted, as was the cleaning up of the channel at Winnipegosis.

A further improvement in depth in the St. Mary's river at Sault Ste. Marie, Ontario, was effected. Maintenance dredging was done at Kincardine, on Lake Huron; at Port Burwell, Port Stanley, Rondeau and Kingsville, on Lake Erie; at the mouth of the Thames river in Lake St. Clair; and at Oakville, Whitby, Bowmanville, Port Hope, Cobourg and Kingston, on Lake Ontario. Congestion of freight traffic by rail, especially in the transportation of coal made the traffic in this commodity by water much heavier than usual. The increasing demand for road building materials in southwestern Ontario can most satisfactorily be met by water transport, and improvements were made to meet this demand.

In Quebec, work was carried on at Harricanaw river; at Isle du Pads, Doucet's Landing, Three Rivers, Batiscan and St. Francis river, on the St. Lawrence above Quebec; at Vaudreuil on the Ottawa river; at Murray Bay and Port Alfred on the lower St. Lawrence.

In New Brunswick, to meet increased shipments by water, work was done at St. John, Bouctouche, Chatham, Kouchibouguac, North West Miramichi, St. Charles river, Newcastle and Bathurst.

In Nova Scotia, work was done at Digby, Liverpool, Sydney, New Campbellton, Pietou, Windsor, Fourchu, Trenton, Glace Bay, Ballantyne's Cove, Yarmouth, Margaree, Chimney Corner, Mulgrave, Point Tupper, Middle South and Lunenburg.

In Prince Edward Island work was performed at Charlottetown, Vernon River, Bay Fortune and Georgetown.

Special reports to the number of ninety-five were forwarded during the year to the Departments of Marine and Fisheries and of the Naval Service, covering works

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of dredging performed during the season, so that mariners might be kept acquainted by means of alterations of charts and Notices to Mariners, with such work as had been accomplished.

In the further interest of efficiency, various departments of the Government which had knowledge of a special nature relating to problems presented to this department, have been consulted to considerable advantage.

Dredging operations were carried on at the following places where an expenditure of \$10,000, or over, was made:—

Nova Scotia.—Digby, Liverpool, Glace Bay, Pictou, Yarmouth, Margaree.

New Brunswick.—St. John, Buctouche, Newcastle, Bathurst.

Prince Edward Island.—Charlottetown, Vernon River, Bay Fortune.

Quebec.—Port Alfred, Batiscan, Doucet's Landing, Three Rivers, River St. Francis, Vaudreuil, Harricanaw river.

Ontario.—Thames river, Kingsville, Port Burwell, Port Stanley, Bowmanville, Oakville, Port Arthur.

Manitoba.—Red river, Big George island, The Pas, Winnipegosis.

British Columbia.—Powell river, Shoal passage, Howe sound, Fraser river, Main channel, Fraser river, North Arm, Columbia river, Victoria.

PUBLIC BUILDINGS

The sum expended on the construction, maintenance and repairs of public buildings throughout the Dominion, exclusive of military hospitals and buildings, was \$8,443,892.20 which is practically the same as the outlay made during the last fiscal year. Of this amount, \$3,574,779.65 was expended on the construction and improvement of public buildings, and \$4,869,112.55 in repairs and maintenance.

The following buildings were completed during the year:—

Nova Scotia.—Annapolis and Yarmouth, restoration of public buildings partially destroyed by fire; and at Lawlor's Island Quarantine Station, a pump-house.

Quebec.—Granby, addition to public building; Montreal, addition to Central Post Office building, and at Grosse Isle Quarantine Station, a boiler-house.

Ontario.—Hamilton, postal station "B"; Kingston, wing to Military College; Oshawa, addition to public building; at Ottawa, the War Trophies building, Ore Dressing Laboratory and several buildings at the Experimental Farm.

Manitoba.—Brandon and Portage la Prairie, addition to public buildings.

Saskatchewan.—Indian Head Forestry office.

MILITARY BUILDINGS

Nova Scotia.—Bellevue, Halifax, new ward building and alterations; Camp Hill, administration building and laundry.

Ontario.—London, several isolated buildings at Westminster hospital; and at Toronto an orthopaedic officers' ward building.

British Columbia.—Vancouver, Fairmount barracks alterations and new stables.

The following buildings were still under contract at the close of the fiscal year:—

Ontario.—Parliament buildings at Ottawa; Kingston, an Educational Block at the Military College; and at Toronto, postal station "A."

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RECONSTRUCTION OF PARLIAMENT BUILDINGS, OTTAWA

During the session of 1920, it was found impossible to continue the work in the building, and the contractor's force was reduced to a minimum. During the first week of July, 1920, work was reorganized at the building. Temporary structures, such as partitions, etc., erected for the session were removed and the installation of permanent work was continued.

Erection of stonework on the Tower commenced during the week of September 13, 1920, and was continued up to the sill course of the third floor windows. The work was shut down and closed in for the winter during the first week of November, 1920, at which time a height of forty feet above the ground had been reached. Operations were resumed in the early spring.

At the opening of the session of 1921, the whole of the building was being occupied, except the rooms about the main entrance on the lower floors, where the inability to complete the cutting of the stone for the main entrance made it impossible to finish the work.

The following is a more detailed report of the progress of the work during the year:—

Interior Masonry.—Since work was resumed in July, 1920, the stonework in the Senate Chamber has been completed and stonework and marble work has been completed in the staircases on the Senate side with the exception of those at the east end of the north and south corridors. Setting of stone and marble in the walls of the Court of Honour has proceeded, except in the main entrance passage to the Library from the north corridor and cross-passages to Commons Reading Room and Railway Committee Room, which have been entirely completed including the groined vaulting of stone. The stone for ceiling of the Court of Honour and for the walls and ceiling of the Main Entrance Hall is now in hand in the stone shop on Sussex street, and setting will commence at the close of the session of 1921. The work at the building is so far advanced, however, as to give full use of the main corridors and cross-passages throughout. On the ground floor, the Main Entrance Hall (through the Tower) is still in the hands of the contractors. The stone for this portion is being cut and will be set in conjunction with that on the floor above.

Marble Work.—With the exception of the marble base and steps, etc., that will be built in with the stone work in the Main Entrance Hall and staircase mentioned above, the marble work throughout the building is virtually completed. During the summer and fall of 1920, the ashlar work in the corridors of the fourth and fifth floors was completed, as well as the elevator halls, radiator backs and safes and lavatories, including a new layout in the barber shops, on both Commons and Senate sides.

Plumbing Work.—Temporary fixtures were erected in the lavatories where marble was not completed, for use during the session of 1920. These have been removed, and permanent installation of the fixtures has been made. The plumbing contract has been completed, and the work was handed over to the Department of Public Works at the beginning of February, 1921.

Carpentry and Finished Woodwork.—Panelling, etc., in special rooms, oak panelling and screens in the Senate Chamber, Senate Reading Room, suite of rooms to the east of the Senate and in the Main floor pavilion rooms, have been erected, and woodwork in and around restaurant entrance and private dining rooms, top floor, and ladies' reception room, main floor, has been installed. Work in this trade is now practically completed.

Painting.—Work has been continued on painting of offices and corridors, and has been completed on the upper floors. Nothing has yet been done with the corridor ceiling on the main and third floors. Corridors and rooms on the ground floor are,

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generally speaking, painted. In all cases wall cloth and burlap were applied to the walls before painting. The pavilion rooms and freize in panelled rooms have been papered with decorative paper in keeping with the panelling.

Decorative Work.—Contracts were made during the year for the decoration of the Commons and Senate Chamber ceilings, corridor ceiling around Commons Entrance Hall and for the Senate Railway Committee Room. This work was carried out and completed in time for the opening of the 1921 session of Parliament.

Elevators.—Installation of all elevators, including electric signal system and pneumatic door-opening devices, has been completed, and the elevators handed over to the Department of Public Works.

Stair Balustrade.—No permanent balustrades were installed on marble stairs for the session of 1920. They have since been installed on the stairs in the west part of the building only; the remainder will be put in at the close of the session of 1921, and after the erection of the marble stairs in the east end of the building. The contract for stairs to the top floor from the fifth floor in the south stairway has been completed.

Electrical Clocks.—The electric clock system has been installed and is now working satisfactorily.

Kitchen and Refrigeration Equipment.—These were both installed since the session of 1920, and were ready for use at the opening of the Restaurant for the session of 1921.

Granite Steps, Sidewalks, Etc.—A commencement was made with the laying of sidewalks during the summer of 1920, but the failure of the contractors to deliver the material contracted for, made it necessary to close down the work. A new contract has been made for delivery of the remainder of the material in the spring of 1921.

Bronze Revolving Doors to Commons and Senate Entrances.—These have been contracted for, but have not yet been installed.

Labour.—Labour conditions have been fair during the year and without disputes. The standard rate of wages as approved by the Department of Labour, has been adhered to, except that it was found necessary to give the plasterers a bonus of fifteen (15) cents per hour since November 15, 1920, in order to hold the men on the job, as in other buildings in the city the bonus was being paid. There seemed to be a scarcity of mechanics in the trade during the whole year.

The average daily force employed by the general contractors and the sub-contractors during the year has been 415.

Advisory Board.—During the year, fourteen meetings of the Advisory Board and six meetings of the Joint Committee on the reconstruction of the Parliament Buildings have been held.

Contracts.—The general contractors, with the approval of the board and the committee, have entered into the following sub-contracts, since the last report was submitted:—

On the 2nd September, 1920, authority was given to enter into a contract with the Architectural Bronze and Iron Company, Toronto, Ont., for bronze revolving doors and enclosures, at \$12,800.

On the 4th November, 1920, authority was given to enter into a contract with the Stanstead Granite Quarries, Limited, Beebe, Que., for granite steps, flagging, curbing and pitchings, at \$55,787:

Acting upon the recommendation of the Special Committee appointed for that purpose, a contract was entered into on the 21st September, 1920, with Major R. Tait McKenzie, M.D., Sculptor, Philadelphia, Pa., for the designing and casting, for the sum

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of \$12,000, of a statue of the late Lieutenant-Colonel George Harold Baker, M.P., for Brome, Que., who lost his life on the field of battle, which is to be placed in the lobby of the House of Commons.

In addition to the above, the following orders have been placed direct by the architect for furniture and decorations, with the assent of the Joint Committee:—

Commons Chamber—

Front row desks (Geo. Roberts, Montreal, Que.).. . . .	\$ 6,160 00
Tables for floor of House (Henry Morgan Co., Montreal), also chairs for floor of House (Henry Morgan & Co., Montreal)..	3,883 00
Members' chairs (Castle & Son, Montreal).. . . .	23,712 00

Senate Chamber—

Members' desks (Bromsgrove Guild, Montreal).. . . .	12,550 00
Furniture for floor (J. C. Scott Co., Toronto).. . . .	2,021 50
Chairs for floor of Senate (Castle & Son, Montreal).. . . .	750 00
Senators' chairs (Castle & Son, Montreal).. . . .	8,910 00
Seating in galleries (Globe Furniture Co., Waterloo, Ont.).. .	6,748 50

Restaurant—

Chairs (Castle & Son, Montreal).. . . .	10,185 00
Tables (R. A. Sproule, Ottawa).. . . .	2,183 50
Serving tables (Valley City Co., Dundas, Ont.).. . . .	2,400 00

Decoration of Commons ceiling and entrance halls (Mack, Jenny & Tyler, New York).. . . .	33,000 00
Decoration of Senate ceiling (Mack, Jenny & Tyler, New York)	18,000 00
Decoration of Senate Railway Committee Room (A. Pasturia, New York).. . . .	4,000 00

Carpet—In Senate Chamber, Senate Reading Room and suite of rooms east of Senate—(Governor General's), (Cleghorn & Beattie, Ltd).. . . .	5,925 00
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TELEGRAPHS

To conform with the practice of commercial telegraph companies, the Telegraph Branch will, in future, report on length of pole mileage as distinguished from wire mileage, and for the present fiscal year reports the pole mileage as being 11,205½, the wire mileage 13,615, and cables 354½, with 1,248 offices. The messages sent during the year aggregated 636,471, as compared with 584,346 during the preceding year, or an increase of 52,125 messages.

The expenditure on construction, repairs and maintenance was \$1,083,242.05, as against \$885,730.19 in the previous year, an increase of \$197,511.86.

The revenue shows an increase of \$52,721.48 over 1919-20.

During the year, 147½ miles of new line was constructed, as follows:—

	Miles
Alberta.. . . .	3½
British Columbia.. . . .	119
Yukon.. . . .	25

The telephones, telegraphs and conjoint offices on the system are as follows:—

	1921	1920
Telephones.. . . .	774	708
Telegraphs.. . . .	366	365
Conjoint.. . . .	108	106
	<hr/> 1,248	<hr/> 1,179

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NATIONAL GALLERY

In addition to the report published in this volume, the Board of Trustees have issued a special report that contains a great deal of interesting information.

The National Gallery of Canada was founded in 1880, and has grown by means of annual grants made by Parliament for such purpose, and by gifts.

In 1907, an Advisory Arts Council was appointed to administer the grants; and in 1913, the National Gallery of Canada was incorporated by Act of Parliament 3-4, George V. chapter 33, which placed it under the management of a Board of Trustees, consisting at present of Sir Edmund Walker, chairman, Honourable Arthur Boyer and Dr. F. J. Shepherd.

Under this authority, the trustees developed a policy of loan exhibitions of works of art based on the theory that these exhibitions would have an important influence in bringing about the establishment of schools of art and design. It is impossible for all Canadians to visit Ottawa, but it is possible for the Gallery to be brought within reach of the great majority of the people by means of loan exhibitions. Through these exhibitions, almost every city and town of importance from Halifax and St. John in the east, to Victoria and Vancouver in the west, has had the opportunity of viewing artistic work of good quality, and the result is making itself apparent in the formation of many art associations and schools throughout Canada, among the most recent of which is the British Columbia Art League, of Vancouver, B.C., which was incorporated under the Societies Act of that province in December of 1920, and now has its own gallery, and the Provincial Arts and Industrial Institute in Victoria, B.C.

The work of the National Gallery has borne much fruit also in Manitoba and Saskatchewan, and considerable interest is being manifested in Alberta.

At the present time, the National Gallery is conducting exhibitions of Canadian art at the following places: Collingwood, Fort William, Port Arthur, Hamilton, London, Sarnia and Welland, Ontario; Winnipeg, Manitoba; Moose Jaw, Saskatchewan; Medicine Hat, Alberta; New Westminster and Vancouver, in British Columbia.

Before the closing of the National Gallery in 1916, when the Victoria Memorial Museum building was first occupied by the Houses of Parliament, it had outgrown its accommodation, and when in 1920 the building was vacated by Parliament, a general scheme of rearrangement was necessary. The whole of the East Wing of the Victoria Memorial Museum building has now been assigned to the Gallery and provides a much more commodious home for its varied collection of works of art. The scheme of restoration has added considerably to the space, but even now there is little room for future expansion. The ground floor of the East Wing has been converted into a Sculptor's Court. The second, third and fourth floors have been rearranged to make some fifteen picture and print galleries. The East Wing has been separated from the rest of the building by fireproof partitions, so that the Gallery now controls its own heating and ventilation. The improvements and alterations were not completed by the end of the fiscal year, but it was possible to reopen during the month of September, 1921. The Gallery is now available to the public on all week days and holidays, except Christmas Day and Good Friday, from the hours of 10 a.m. to 5 p.m., and on Sunday afternoons, October to April, from 2 p.m. to 5 p.m. To the ordinary visitor as well as to the student and art connoisseur, the National Gallery will be found an enchanting place.

During the fiscal year, the following works were purchased:—

“Mary and Guido,” by George Spencer Watson.

“Pastoral,” by Maurice Greiffenhagen, A.R.A.

“Shacks,” by Lawren Harris.

“Fire Swept Algoma,” by Francis H. Johnston, A.R.C.A.

“Night, Georgian Bay,” by A. Y. Jackson, R.C.A.

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"The Edge of the Wood," by P. Nicholas Loveroff, A.R.C.A.
"Maison de Cavelier de la Salle," by Georges Delfosse.
"The Day Turns Ghost," by W. M. Barnes.
"Fishermen, Lake Ontario," by Manly MacDonald, A.R.C.A.
"The Green Balloon," by Emily Coonan.
"Lake Traffic," by Peter C. Sheppard.
"The Last Gleam," by Fred S. Haines, A.R.C.A.
"Abraham Dismissing Hagar," by Le Nain.
"The Solemn Land," by J. E. H. MacDonald, A.R.C.A.
"Summer Evening," by W. J. Wood.
"John," by F. H. Varley.
"Dufferin Terrace," by Mary E. Wrinch,
oil paintings.
One water colour, "A Water Baby," by Walter J. Phillips.
One piece of sculpture, "Son Meilleur Jouet," by Katherine E. Wallis,

and one hundred and fifteen prints, etchings, lithographs and drawings.

The possessions of the Gallery have this year been greatly enriched by the receipt from the Canadian War Memorials Committee of London, England, of the collection of Canadian War Memorial paintings. A few typical canvases have been used to decorate the walls of the Senate Chamber in the new Parliament Buildings. Canada's artistic record of the war is unsurpassed, and while, unfortunately, most of these paintings must be stored for the present, steps have been taken to repair and renovate them in anticipation of the time when it will be possible to suitably place them on exhibit in a War Memorials building.

Appended to this report will be found detailed statements from the different branches, giving full particulars of the various works carried out by the Department during the year.

I have the honour to be, sir,
Your obedient servant,

J. B. HUNTER,
Deputy Minister.

PUBLIC BUILDINGS

By R. C. WRIGHT, Chief Architect

NOVA SCOTIA

ANNAPOLIS

Public Building.—A contract was awarded September 18, 1920, to Messrs. Denton & Condon for the erection of a two-story structure with attic and stone basement being an exact replica of the original building. The post office, customs and inland revenue occupy the building.

It is constructed of brick on stone foundation with stone trimmings, sloping roof covered with asbestos shingles, copper cornice, apron, gutters, ridge rolls and conductors. The deck roof is of felt, tar and gravel. The ground floor is utilized for Customs examining warehouse, Post Office public lobby, and office working space and furnished with vault and toilet accommodation. The first floor contains Customs Collectors and Inland Revenue offices, vaults and lavatory. The attic is assigned to the janitor. A hot-water heating system of twin connected boilers with ample radiation is installed. Electric light wiring in conduit and fixtures have been supplied.

HALIFAX

Immigration Building—Pier No. 2.—The upper floor of this building which had been used as a hospital and discharge depot by the Militia Department was remodelled to suit the requirements and handed back to the Immigration Department.

The work consisted of alterations to existing partitions, erection of new partitions for examination and detention rooms, booking hall, offices, matron's quarters, guard-room, new toilets, etc.

The electric wiring was placed in conduits and the heating system altered or overhauled, and renewed where necessary.

Alterations were made to the hospital at east end of building to accommodate both male and female patients.

LAWLORS ISLAND

Quarantine station.—The contract for pump house and water supply was completed during the fiscal year.

YARMOUTH

Public Building.—A contract was awarded September 30, 1920, to Messrs. Russell & McAulay for alterations and additions to the public building.

The alterations consist of the removal of the rear wall, on the ground floor, the main staircase to first floor, walls surrounding the side entrance hall and the offices and hallway in rear of main hall, to enlarge the public lobby and the working space of the Post Office. A brick annex was added and a number of structural changes made in the original building.

Walls were built of brick on concrete foundations. New basement walls were damp proofed and cut-stone used similar to the present work. Steel beams and columns carry the work above the ground floor. New doorways formed, openings built up,

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partitions removed, steel ash hoist including all its accessories provided and installed. Floors of vestibule, toilet rooms and mail alcove floored with red quarry tile. The whole of the first floor and all new flooring covered with maple. New staircase constructed. Various repairs and improvements to ventilation of toilets. The roof covered with felt, tar and gravel and the present slated roof made good. Hot water system installed and provision made for additional new radiation, electric light wiring in conduit, and fixtures, complete.

PRINCE EDWARD ISLAND

Repairs, alterations and improvements were made to the public buildings at Charlottetown, Georgetown, Montague, Souris, Summerside and Tignish.

NEW BRUNSWICK

ST. JOHN WEST

Immigration Building.—The ground floor was divided by new partitions after some old ones had been removed and large dining room, detention room, disinfectant room, guard-room, Immigration offices, toilet rooms, etc., were constructed.

Large new heating boiler was installed and sundry improvements made to the system to improve heating of this building and the adjacent No. 4 shed.

In the main building and No. 4 shed the toilets, urinals, sinks, baths and plumbing were overhauled, improved and repaired; doors and windows secured with iron guard bars, electric lighting system was rearranged, and general repairs were made to wood-work, interior porch and steps.

PARTRIDGE ISLAND

Quarantine Station.—Extensive repairs made to restore buildings and equipment to original condition.

Wire fencing was supplied and a fence built around old battery, contract was made for the fencing of the quarantine grounds and the cemetery.

Two tanks and heater were installed and pipes overhauled and radiator installed in kitchen.

Repairs made to plumbing, bathtubs, washbasins and closets, laundry tub, etc.

New heating boiler was installed in hospital with additional radiation.

Painting and kalsomining of interior and exterior.

Third Class Detention Building.—A contract was awarded on January 28 to J. E. Kane, for the erection of an addition to the north side of existing building to accommodate two new common rooms, two large toilet rooms and eight bathrooms. The new building is 34 by 38 feet, two stories high with pitched roof and on concrete foundation without basement. The outside walls are of frame, covered with clapboards and the floors of wooden construction.

In the old building, several changes were also made.

QUEBEC

GRANBY

Alterations and additions to Public Building.—The alterations consist of the removal of the walls enveloping the staircase hall, side entrance and steps and the staircase on the ground floor and for basement, the toilet room and partitions of an office adjoining stairway, but the mail entrance lobby has been retained.

The new work gives an extension of the working part of post office into the examining warehouse wing as far as the new staircase hallway. By the introduction of steel beams and piers the work above is carried.

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The walls of the wing have been extended one story higher to provide two offices, and a hallway connects with the main part of the building on the first floor.

The walls are of brick finished with galvanized iron coping; window sills, heads and lintels of cut stone. Roof covered with tar, felt and gravel.

The materials were purchased and work executed by day labour.

GROSSE ISLE

Quarantine Station.—During the fiscal year ended March 31, 1921, the work at Grosse Isle consisted in general repairs, the material supplied and work done by day labour, no new constructions having been made with the exception of the contract for the boiler house, referred to in my report for last year, which has been completed, and the building fitted up.

MONTREAL

Central Post Office.—A contract was awarded on July 13, 1920, to Messrs. Peter Lyall and Son Construction Company, Limited, for alterations and additions to the Central post office. The work consisted of a four-story fireproof addition 29 by 29 feet built over and spanning Fortification Lane. The walls are composed of terra-cotta and brick and the floors of reinforced concrete supported on steel beams. A new iron balcony connects this addition with building in rear.

The original window openings are now changed into doorways uniting the building adjoining with this new part.

General maintenance repairs were made to plumbing, heating, elevators and electric lighting, bells, painting and glazing, and a terrazzo floor was laid in money order branch.

QUEBEC

General Post Office.—New accommodation was provided for the Customs postal parcels branch. Alterations made in the electrical installation and outlets located in relation to the position of fittings. The hardwood floor patched up where needed and walls and ceilings properly plastered, washed and tinted, woodwork varnished, skirting painted, radiators bronzed, and other repairs made.

Marine Store Building, King's Wharf.—General restoration and fitting up interior of this building, including an electric elevator.

ONTARIO

ALEXANDRIA

Public Building.—The destruction of the post office by fire on March 2, 1921, originated in the basement of a hardware store adjoining.

The building is 33 feet 6 inches by 49 feet, and consisted of a two-story brick structure on a stone foundation.

The ground floor contained the post office and examining warehouse; the first floor and attic the living quarters for the caretaker. The basement was used for the heating apparatus, fuel and storage space. It has been entirely gutted and only the outer walls remain standing.

The old heating and plumbing material or junk rescued from the ruins being of no further use by department was sold by tender and removed.

HAMILTON

Postal Station "B".—The contract referred to in last year's report has been completed. The building is situated at the corner of Barton street and Stirton avenue and has a frontage of 41 feet and a depth of 79 feet, consisting of two stories and basement and has a flat roof.

Interior post office boxes and fittings have been installed.

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KINGSTON

Royal Military College.—The contract for the construction of one wing and part of central tower of educational block, R.M.C., fully described in the last year's report is now completed.

In addition to the above, several items were executed to complete the building.

OSHAWA.

Public Building.—The one-story structure referred to in last year's report has been completed.

Concrete roadways were laid on the east side of post office and continued around to the north side between post office and new examining warehouse, and alterations and improvements were made to the building.

OTTAWA.

Victoria Memorial Museum.—After the fire that destroyed the Parliament Buildings, the Victoria Memorial Museum was used temporarily to house the House of Commons, Senate and the offices for the Members and Senators.

Temporary partitions had been erected to subdivide the large floor areas into offices.

During the occupation of the building, the National Gallery and the Geological Survey were located in other premises.

On moving back to this building, the changes that were made provides the Art Gallery with a separate entrance at the east end of the building, separate quarters closed off from the remainder of the building by fire-proof partitions and doors.

The elevators were overhauled, cleaned thoroughly and put in first-class order. All toilet rooms were kalsomined.

One thousand feet of felt and pitch roofing repaired, copper flashings removed and replaced.

A very considerable amount of work was done in connection with refitting for National Art Gallery, and Geological Branch of Mines Department. It comprised renovations, the installations of a number of sinks, a rearrangement of the electric lighting and call-bells system, the placing of new blinds, the erection of partitions, the covering of walls with burlap in the Art Gallery, cleaning, scraping and treating of floors.

Privy Council Chamber—East Block.—Installation of a new freight elevator, including steel works, grills, iron and wire screens and collapsible gates.

Arranging of direct circuit service together with alterations to heating pipes, partitions, etc.

In the Privy Council chamber, three windows were entirely renewed, new flooring was laid and repairs made to wood-work. The fireplace rearranged, the walls and ceiling decorated and curtains provided for all windows, the heating arrangements were improved by the installation of large radiators, the corridor leading to the chamber was redecorated and doors re-covered with cloth. Repairs made to heating boilers, additional boilers provided and brick work to them executed.

An iron grill was placed at entrance to the heating tunnel and two in corridors on second and third floors.

City Post Office.—Elevator car taken from old Parliament Buildings rebuilt and erected as a freight elevator with structural steel tower, ornamental iron and kalamain work complete.

Government Printing Bureau.—Alterations and additions.—A contract was awarded on August 17, 1920, to the Geo. C. Graves Construction Company for alterations and

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additions over boiler room situated at rear of the Printing Bureau. The work consists of a four-story structure fireproofed throughout, self-supporting external walls with stone trimmings and galvanized iron cornices, similar brick and stone work, brick arches and stone sills to the original building. Steel framed, all the structural steel beams, columns and flanges of beams are wrapped with expanded metal encased with concrete. Floors and roof slabs built of concrete reinforced with steel. Surface of floors finished with mastic asphalt. Outside brick walls lined with hollow brick. All partitions of terra-cotta and stone cornice removed and reused on rear wall. Suspended ceiling furred with metal lath. Plastering on all lathed surfaces and portions disturbed by alterations. All new exterior and interior woodwork, exposed galvanized iron, kalamains, ironwork, brickwork, steel partitions, walls and ceilings in toilet room painted, glazing done to windows, doors, glass panels, etc.

Main cornice, coping, belt courses, etc., of galvanized iron.

Spiral staircase and landings of cast-iron interlocking around a central post. Conveyor chutes of steel sheathed with wood, ventilation provided to toilet rooms, fire doors installed, pent house erected; the addition was roofed with felt, tar and gravel. Elevator removed to new position, new car, additional guides, etc., enclosure covered with kalamain iron including doors, steel sash and door openings, repairs and changes to the drainage, plumbing, heating, electric light installation, electric elevator, etc. Removals and alterations to partitions, toilet rooms, cornice, roof to suit the requirements.

Supply and installation of electric passenger elevator car and machinery, elevator enclosures and steel tower and collapsible steel gate. This elevator erected in the main hall or entrance to the Printing Bureau occupies the space between the main stairs and the mezzanine landings.

War Trophies Building.—A contract was awarded on June 18, 1920, to Messrs. Doran & Devlin for this building, situated on Sussex street to the south of the Archives building, which is a one-story structure 125 feet long by 50 feet wide. The walls which are made of 12 by 12-inch terra-cotta hollow blocks, plastered and rough coated outside, rest on concrete foundations without basement. The ground floor, consisting of a 5-inch concrete slab with a 1-inch finish, rests on earth and stone fill to the required grade. It is lighted by patent hand steel frame windows, pivoted sash. The steel columns supporting the steel beams strutted and sway-braced support the roof, and the roof proper is made of joists sheathed diagonally with tarred felt and gravel covered with galvanized iron cornice and flashings. The ceiling has been furred and plastered but the walls inside have not been plastered.

On the south side are double doors with concrete approaches for delivery of the trophies. The visitors' entrance is on the north side.

The electric lighting has been provided; there is no plumbing but the building is heated by stoves.

Restoration of Ore Dressing Laboratory.—A contract was awarded on October 12, 1920, to Messrs. Taylor and Lackey, contractors, for the restoration of a one-story frame building on concrete foundation, which was partly destroyed by fire in the winter of 1920.

An addition at the west end for an assay laboratory, and a boiler room on the south side of the building and about its centre were added to the existing building.

The outside walls are diagonally sheathed, papered and clap-boarded, painted to match the other work, the interior being finished with tongue and grooved V-joint, and stained.

The centre part reconstructed is mainly occupied by the carpenter's shop and men's toilet. Partitions separate the engineer's toilet room and shower-bath from the general one.

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The assay laboratory is similarly constructed as is also the boiler room which floor is three steps below the floor of the rest of the building. The floors throughout are of concrete with a cement finish.

The building is steam heated from a locomotive firebox boiler of thrashing-engine type situated in the roaster building.

New plumbing and repairs to the damaged one was done by the contractors, as also the installation of the hot water tank and heater which are situated in the boiler room.

The electric wiring is protected by conduit.

A new 24-gauge corrugated iron roof was laid over the roaster building.

Fuel Testing Laboratory, Mines Department.—During the year this building was damaged by fire and repairs to it were executed.

Two water-closets and one urinal were installed and the heating apparatus overhauled.

Experimental Farm.—The west half of the old dairy building was moved to a site adjacent to the flax building and set on a concrete foundation, and alterations and repairs made to convert same into a dwelling for horsemen.

Alterations have been made to the east half of the old dairy building which is situated close to the old dairy building site and rests on a new concrete foundation; is divided into two offices, a storeroom and toilet room.

In the greenhouse, the second and third stories over the potting room were fitted up for a residence, and three rooms on the second floor of the horticultural building were fitted up for offices; hot water heating system installed for the purpose of heating first and second stories.

The flax building was destroyed by fire on January 18, 1921.

Residence for the Poultry Husbandman.—A contract was entered into on January 26, 1921, for alterations to a building at the eastern entrance to the farm which is of stone, and the walls, chimneys and pediment on front elevation have been raised several feet. A new shingle roof has been provided and the whole of the interior remodelled.

To this building an extension has been added, measuring 17 feet deep by 28 feet wide; the construction is batton frame set on concrete wall; the exterior is in rough cast; roof is shingled, new floors laid throughout, and a new fireplace and chimney was built.

The basement of this building is provided with furnace room and coal bunker.

The first floor of the building is divided into an office, kitchen, dining-room, living-room, hall and vestibule.

Second floor consists of four bed-rooms, bath-room and sleeping porch.

Heated by hot water and lighted by electricity.

Poultry Office Building.—A contract was entered into on August 19, 1920, for the erection of an office building, which is situated on a site facing Maple avenue. This is a two-story building 45 by 45 feet with an attic. The construction is solid brick, set on concrete foundation walls. The roof is covered with asbestos shingles.

The basement floor consists of an incubator room, egg room, furnace room, a coal bunker and toilet room. The first floor is divided into five offices, one ladies' toilet room and a cloak room. The second floor is in one large room which serves as a stationery and filing room.

Heated by hot water and lighted by electricity.

Old Machinery Hall, Lansdowne Park.—A contract was awarded September 18, 1920, to Messrs. Cooper, MacDonald & Beattie to prepare the old frame building for temporary occupation by the R.C.M.P.

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The accommodation provided, consisted of four barrack rooms, recreation room, mess, sergeants' quarters and mess, kitchen, canteen, toilets and showers.

The work comprised the erection of new stud partitions and plumbing fixtures. The lavatory fixtures and baths were supplied by the department to be installed by the contractors. The electric lighting system was increased to suit requirements. An addition to the concrete sewage collecting tank was made and new wood frame built over whole tank and present pump raised to grade level.

PEMBROKE

Public Building.—A contract was awarded on October 4, 1920, to the Estate of Walter Beatty for the construction of a new four-dial clock tower, 10 feet square by 30 feet in height, surmounted by an iron weather vane finial.

The new clock machinery was supplied by John Smith & Son, England. The original bell was used again. Some necessary alterations were made in caretaker's quarters; new pine floors were laid, and painting and decorating done in two front rooms and hall.

ST. THOMAS

Public Building.—A contract was awarded November 3, 1920, for alterations to plumbing and toilet room throughout this building and the work has been completed.

A gas-heater and boiler for hot water and heating purposes were installed.

Several transoms were altered so as to provide better ventilation; windows reglazed where required, and other minor repairs were made.

TORONTO

Postal Station "A".—Work on this building is still in progress at the end of the fiscal year but it is nearing completion.

WELLAND

Public Building.—An addition was made to rear of building and new doorway put in as accommodation for rural mail.

Curbs at edge of roadway in rear of building were put in and yard was graded and seeded down to form lawn.

A new floor was laid in the lobby, electric wiring changed due to alterations to exterior fittings, and other repairs were made.

MANITOBA

BRANDON

Public Building.—The post office was rewired and equipped with new electric lighting wiring in conduit and fixtures.

The addition and alterations to the public building referred to in last year's report have been completed.

DAUPHIN

Public Building.—A contract was entered into for alterations to heating plant, consisting of taking down existing hot-water heating boiler; taking down and re-erecting existing flow and return mains in basement, altering and providing new branches and returns to existing system; providing and installing complete two new hot-water boilers and new radiators, boiler pit, smoke breeching, etc., complete.

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PORTAGE LA PRAIRIE

Public Building.—The work referred to in last year's report has been completed. New set of doors between post office space and the west entrance lobby provided.

Supply and installation of post office fittings. Alterations made to provide a new room on second floor for Customs, which was renovated and painted.

The work of taking down and re-erecting old mains and branches in basement, forming boiler-pit, new drains, etc., also linking up to heating flow and return mains of new annex, was carried out by the department simultaneously but under separate contract.

Providing and installing two new hot-water heating boilers and additional radiation.

WINNIPEG

Postal Station "A."—A contract was awarded the Vulcan Iron Works for supplying and erecting a new marquee on the east end of the building, 12 feet above street level. The structure is 56 feet long with 15-foot projection, is of steel construction with corrugated iron roof, and is hung to the wall by seven 1½-inch tie rods, bolted to plate washers on inside of wall. The existing fire-escape was cut at level of roof of marquee and lower portion removed.

Tuxedo Cavalry Barracks.—A contract was awarded Mr. R. M. Wyatt for the conversion of existing pavilions A, B, C, D, E and F into cavalry barracks. These buildings are of frame covered outside with stucco.

This occasioned considerable readjustment in old buildings of new partitions and fixtures.

The accommodation now provided in pavilions A and B, barrack accommodation for 300 men; C and D pavilions, regimental headquarter offices and quartermaster's offices; E and F pavilions provide accommodation for 165 men, also canteens for H.C., O.S. and men's offices in annex.

SASKATCHEWAN

INDIAN HEAD

Forestry Office.—The construction of this building described in last year's report was completed during the fiscal year.

A new lumber garage was erected and new storm porch erected at the front entrance and a storm door at the back entrance.

ALBERTA

RED DEER

Court House Building.—A contract was awarded on September 20, 1920, to Wm. H. Cawston for alterations and additions and repairs to court house building for conversion into post office on ground floor and Customs offices on second floor.

Cement sidewalk and curbs was laid from front of building to street; new brick piers on concrete footings in basement to receive the steel beams and columns that carry the upper floors.

Porches on east side and platform at rear were taken down and removed; vault, partitions, dais, steps, doors, etc., on ground and first floors removed, new partitions skirting the whole modified to suit requirements.

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The front porch was built of brick on stone foundation; new walls waterproofed; new concrete piers were built to receive new wood porch at rear; several openings built up; portion of exterior refaced to match the existing work; floor to vestibule raised and ground floor covered with maple flooring.

Front staircase was removed and new one constructed, dum waiter, including guides and machinery, furnished and installed. Roof of new porches covered with galvanized iron. Painting done to all exterior and interior woodwork, ironwork, galvanized iron, etc.; walls and ceilings kalsomined, also glazing to doors and windows.

BRITISH COLUMBIA

NAAS RIVER

Public Building.—A three-roomed frame building was constructed for the fishery officer, containing office, kitchen and bedroom, dimensions 22 feet by 18 feet with a six-foot verandah.

VANCOUVER

R.C.M.P. Barracks, Fairmont.—A contract was entered into by Messrs. E. Chrystal & Co., Ltd., Vancouver, on August 17, 1920, for the conversion of existing buildings at Fairmont barracks into a garage and stores building for the R.C.M.P.

Alterations were made to the existing building situated south of the main building, in the basement the earth was excavated for a new garage for heavy cars and carpenters and farriers shops. A retaining wall around three sides of the garage was built and a new concrete floor was constructed. Windows, doors and a board wall were put in and fixed and on the first floor, all old partitions were removed and new partitions put in to form two master's stores, office, tailor and saddler shop, hall, guard-room, toilet and garage for light cars. Electric lighting and water systems were put in throughout the building.

Two electric standard poles and a three-wire service of 300 feet from B.C.E. pole to stables were installed.

Another contract was entered into with Jos. Wm. Bye for the restoration of a portion of R.C.M.P. barracks at Fairmont.

A fire in the main building made the following work necessary: The central hall and the whole of the attic south of the central line were rebuilt; central barracks room and all of the roof south of central line were replaced; partitions and walls on second and attic floors were replaced and the lighting and water systems completely restored and all new replacements were re-decorated and the roof stained.

Ceiling of boiler room was covered with asbestos as a fire preventative and two double doors at foot of basement steps and plaster partition wall in east side boiler room were removed.

Still another contract was entered into November 30, 1920, with Robert Moncrieff for the construction of horse stables.

The site is bounded on the south by 37th avenue, on the east by Heather street and the north by 33rd avenue. The buildings consist of four buildings, each 115 feet long and 32 feet 7 inches wide, with a centre communication passage linking them together. The buildings are built on concrete foundations of frame construction; the floors are concreted and all necessary drainage provided.

The exterior walls are covered with rough siding and stained to match the other buildings; the interior walls are sheeted and electric lighting and water systems were installed.

The buildings provide accommodation for one hundred and forty horses.

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MILITARY HOSPITALS

The following is a brief summary of the work classified according to provinces.

PRINCE EDWARD ISLAND

NORTH WILTSHIRE

Dalton Sanatorium.—A small addition was made to the administration building for the accommodation of the X-rays apparatus and dressing-room in the basement and a nurses' sitting-room having a bay window and brick fireplace with a utility room adjoining on the ground floor.

The frame structure rests on a concrete foundation. Outside finish of clapboard; lath and plaster inside, wood floors.

The erection of a pump-house over the well on the Griffin farm.

Installation of a tank with copper coil in the basement of new annex to the administration building for distribution of heating. Pump in boiler room for boosting hot water.

NOVA SCOTIA

HALIFAX

Bellerue Military Hospital.—Ward building under contract was completed, together with sundry alterations for different works including fencing, gates, etc., also drain connection, installation of radiators and heating and stand pipe for fire hose.

Camp Hill Military Hospital.—All buildings and works referred to in the last year's report have been fully completed.

NEW BRUNSWICK

EAST ST. JOHN

County Hospital.—On December 22, 1920, a contract was awarded the Stephens Construction Company for the construction of a garage, workshop, vegetable and coal storage. This building was erected as an addition to the present power-house and consists of coal storage 36 by 39 feet inside by 12 feet in height. Walls, floor and roof are of concrete construction with four circular chutes in roof for receiving fuel. Adjoining the coal storage building is a garage and workshop, one story and basement in size above grade, 38 by 23 feet, with cellar used for vegetable storage.

With the exception of grading and minor finishings, this work is now practically completed.

The area between wings of existing building was closed in and converted into storage and room for ice-making machinery. The contract for the refrigerating plant was awarded to Linde Canadian Refrigerating Company.

ONTARIO

LONDON

Westminster Psychopathic Hospital.—A bulk contract was awarded to W. H. Harvey, dated October 14, 1920, for the construction of assistant medical officers', nurses' and married orderlies' quarters and file conduit from ward "II" to nurses' home and for execution of additional work.

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Another contract was entered into on October 14, 1920, with W. H. Harvey for the erection of a nurses' home.

This is a solid brick building on concrete foundation, with a section of basement fitted for laundry work and storage. This building has accommodation for forty-five nurses, and the accommodation provided consists of living-room with fireplace and mantel, reading-room, kitchen, reception room, matron's office, dietitians' room, two bedrooms and toilet in matron's quarters. There are nine bedrooms for nurses and one large toilet with two bathrooms, on first floor, and nineteen bedrooms with two toilets and four bathrooms on second floor.

The building is 120 by 38 feet, projecting on planks 11 by 28 feet wide, two stories in height, with attic and basement. East end of basement is of concrete; concrete piers support floor on unexcavated area; walls above ground are of solid brick construction with wood floors and stud partitions and plaster; a pitched cedar shingle roof covers the structure. A central entrance on south side with porch, and two side entrances with interior staircases east and west provide access. Stairs, floors, trim, etc., are of kiln dried pine. The building is wired for electric lighting. A steam-heating system is installed with radiators on first and second floors, system being supplied from central heating plant. A 250-gallon tank in basement provides hot water for domestic fittings. The attic floor is not partitioned off and is used for storage.

Five pair of double houses for married orderlies measuring 27 by 40 feet, two stories, and full size basement, have been constructed. Each dwelling contains hall with vestibule, living-room, kitchen and dining alcove, and three bedrooms with clothes closets and bathroom.

The foundation, walls and floors of basement are of concrete, walls of first brick veneer, and second floor timber frame and rough-cast with wooden floor construction, all covered by a pitched roof with pavilion ends; rafters covered with sheathing and cedar shingles. Heated by individual hot-air furnace in basement, and hot-water tank to supply fixtures. The houses were wired for electric lighting.

Four semi-detached double houses for the assistant medical officers were constructed. Each dwelling consists of vestibule, halls and stairs, living-room with fireplace and mantel, dining-room and kitchen, and the second floor has three bedrooms and bathroom.

The buildings measure 30 by 42 feet, two stories, and full size basement.

The foundation walls and floors are of concrete. Walls of first floor frame and brick veneer, second floor timber frame and rough-cast exterior. The floors are of wood construction, all covered by a pitched roof with pavilion ends, rafters being covered with sheathing and cedar shingles.

A steam-heating system is provided in each dwelling, supplied from central heating plant. A 40-gallon hot-water tank is fitted up in each basement connected, supplies hot water to the fixtures to domestic plumbing. The houses are wired for electric lighting.

A contract dated April 17, 1920, was awarded to W. H. Harvey for the construction of valve house, foundation piers, installation of piping for water supply and installation of engine to run draught fan.

A contract was awarded the Canadian Des Moines Steel Company, Limited, dated August 16, 1920, for the supply and installation of steel water-tower and gravity tank.

A contract was awarded to W. H. Harvey dated February 7, 1920, for grading and road work.

A contract awarded to F. R. Dark on February 9, 1921, for a series of electric lighting of grounds, and addition to transmission lines, has been installed, covering all points of ground necessary, also a service carried to supply all diet kitchens in main building.

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TORONTO

Orthopædic Hospital.—All works enumerated in last year's report, including the officers' ward building, have been fully completed.

SASKATCHEWAN

MOOSE JAW

Ross Park School.—The above building was being used as a military hospital and was remodelled again into school premises and the building was handed over to the school trustees in a very satisfactory shape, and accepted by them.

A contract was awarded to H. E. Forbes on June 8, 1920, for the several works required in the process of restoration of school to its original condition as required by the terms of the lease between the Military Hospital Commission and the School Board.

On January 19, 1921, a further expenditure was incurred in dismantling, crating and shipping plumbing and heating fixtures, etc., to Ottawa.

HARBOUR WORKS

By E. D. LAFLEUR, Chief Engineer

NOVA SCOTIA

BARRINGTON PASSAGE

Barrington Passage, Shelbourne county, is 45 miles southeast of Yarmouth.

During the past fiscal year, \$4,106.28 was expended towards the construction of a block and span cribwork wharf 193 feet long, 20 feet wide and 17½ feet high. The rock bank approach was repaired and three cribs put in place, these cribs were fully ballasted at the top, besides this, all the logs and plank necessary for the construction for another six cribs were procured and paid for.

This work was commenced October 13, and completed December 31, 1920.

BASS RIVER

Bass River, Colchester county, is situated at the north side of Cobequid bay, the eastern arm of the Bay of Fundy. It is half way between Truro and Guysboro, or about 28 miles from either place.

During the fiscal year, a contract was let for the construction of a new wharf to replace the old structure now beyond repair, the amount of the contract being \$17,930. It was too late to begin work and secure material this season, and an extension of time was granted on this contract to August, 1921.

BOISDALE

Boisdale, Cape Breton county, is a settlement and a station on the Canadian Northern Railway situated on the southeastern side of St. Andrew's Channel, an arm of the Bras D'Or Lakes, about 15 miles east of Grand Narrows.

On April 20, 1911, the wharf built in 1908, with the exception of the shore abutment, was carried away by an ice-shove down to low water.

As it was found impossible to build on the wrecked foundation of the old work, on November 10, 1919, a contract was entered into in the sum of \$2,350 for the construction of a new wharf, 50 feet to the eastward of the remains of the old one. The new wharf is a native round timber block and span structure, 110 feet in length, 20 feet wide, extending to 6 feet at low water, and consists of a shore abutment, 10 feet long and of three blocks, 17 feet long, with intervening spans 18 feet long. The work was commenced April 26 and was satisfactorily completed June 22, 1920.

CHIMNEY CORNER

Chimney Corner, Inverness county, is on the western coast of Cape Breton island, about five miles south of Margaree harbour.

In order to provide shelter and a landing for the fishermen of the district and to facilitate the shipment of coal from a small mine in the vicinity, a breakwater 171 feet in length, 20 feet wide on top and extending to 12 feet at low water, was constructed here by the department during 1918-19.

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For the purpose of enabling a larger class of vessels to utilize the structure, it was decided to deepen an area, 200 feet in length and 80 feet in width, mostly on the sheltered side of the work, to 16 feet at L.W.S. Departmental dredge No. 13, which had been working at Margaree harbour, was detailed to do this work, which was estimated at 5,400 cubic yards scow measure.

Operations were commenced August 21, 1920, and continued until the 27th following, when solid rock was encountered the work was suspended, and during that period some 1,989 cubic yards scow measure of materials consisting of sand, mud and small rocks were removed, and 500 cubic yards of material were overcast.

DEVIL'S ISLAND

Devil's island is a small, low island about 2,000 feet in length by 1,000 in width, with its highest point about 15 feet above H.W.O.S.T., situated about eight miles to the southeast of the city of Halifax.

On July 25, 1919, a contract was let for repairs to this breakwater, and for the erection of a crib protection around the outer end in order to safeguard the concrete and prevent disintegration to any extent.

Work was commenced in August and crib was placed around the outer end of this work, dimensions being along the outer side, 40 by 15 feet, and along the shore side 40 by 8 feet, being 18 by 20 feet across the end, making a face length of 42 feet and an average height of 15 feet.

This crib was floated into position about the 1st of September, partially ballasted. On the night of September 3, a severe sea completely destroyed it, leaving only the ballast floor and a portion of the ballast intact. After a conference with the contractors, it was decided that it would not be advisable to carry on the work at this late season of the year. Therefore work was abandoned for this season.

On the 26th of June, 1920, an Order in Council was issued, authorizing the return of the security deposited by Messrs. Denton and Condon, and an adjustment of their claim for losses during the storm, the sum of \$4,813.56 being paid in full and final settlement of all work done in connection with their contract. New plans and specifications were called for and the dimensions of the new work enlarged.

The 15-foot crib on the sea side was made 20 feet, that is a 20-foot crib in width, and the one on the inside enlarged from 8 feet to 15 feet. Some other minor changes were made in the plans and specifications, but owing to the lateness of the season, it was deemed advisable not to call for tenders until some time during the coming winter.

During the fiscal year 1920-21, the sum of \$594.50 was expended in repairs to the deck of the cribwork portion of new breakwater. These repairs called for a length of 100 feet, filling the work with ballast where the same had been washed out, covering with new stringers and flooring, also new sheathing for a distance of 10 feet. This portion of breakwater was put in first-class condition.

DIGBY

Dredging

The object of the dredging was to facilitate the berthing and turning of the daily steamer plying to St. John.

Area dredged is about 786,000 square feet. Depth of water obtained, 19 feet at L.W.O.S.T. The width of channel dredged is 400 feet by about 1,100 feet long, and the turning basin about 450 to 600 feet.

The material removed consisted of mud and sand, amounting to 77,149 cubic yards, barge measurement.

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The dredge *Fielding No. 1* worked here from March 13 to June 5, 1920.

In addition to the above, the channel to the Racquet, which is a bay at the northern end of the town of Digby, was dredged to about L.W.O.S.T., and to a width of 100 feet, for a distance of about 700 feet. Approximately 17,636 cubic yards, barge measurement, was removed by dredge *No. 1*, between May 1 and June 5. The material dredged consisted of mud and sand.

EAST RIVER

Dredging

The object of this dredging was to remove a triangular piece of ground having an area of 28,100 square feet to a depth of 15 feet at low water ordinary spring tides and lying at the south side of Cantley Point on the west side of the new channel and at the junction of the old and new channels; the greatest length of this triangular area is 450 feet, and greatest width 110 feet. Material removed was 6,820 cubic yards of mud, clay and a few boulders, scow measure, and the quantity removed during the seasons of 1919 and 1920, to complete the work was 12,457 cubic yards in situ.

Work was done by departmental dredge *No. 4* between May 18 and June 3, 1920, both dates inclusive.

Probably no further dredging will be required for many years to come.

Chambers Point

The object of this dredging was to clean up a portion of the channel 600 feet long by 38 feet wide between Smelt brook and Chambers point, on the East river, to a depth of 12 feet at low water ordinary spring tides.

Material removed by departmental dredge *No. 4* between June 4 and 14 consisted of 4,515 cubic yards, scow measure, of sand and gravel, and the work was completed as projected.

Trenton

Dredging was done in front of the Trenton wharf to remove a quantity of silt that had gathered, and the area was cleaned up to a depth of 10 feet at low water ordinary spring tides on a length of 120 by 40 feet in width; 520 cubic yards of sand ashes and mud were removed on June 15, by departmental dredge *No. 4*.

EATONVILLE

Eatonville is situated about 12 miles west of the town of Advocate. There are two breakwaters at this place. The first one was constructed a great many years ago by the department, and has been from time to time extended. During the fiscal year 1908-09, the second breakwater was constructed on the opposite side of the cove, so as to further protect the entrance.

During the past fiscal year, \$3,484.54 was expended and the whole of the old breakwater was practically reconstructed. The material had been purchased two years previously at a cost of \$800. The work was commenced October 26, 1920, and completed January 8, 1921.

The old breakwater is solid log crib-work 205 feet in length, 20 feet in width and a height at the outside end of 19 feet with an average height of 15 feet.

FRENCH RIVER

French river, Pictou county, is a tidal stream emptying into the gulf of St. Lawrence 10 miles to the eastward of the entrance to Pictou harbour.

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In 1920-21, the sum of \$848.60 was expended in the construction of a new pile wharf on the west side of French river at the north side of the public road and bridge. The wharf is 26 feet long on the river side and 20 feet wide with an approach 25 feet long by 12 feet wide and a roadway approach 54 feet long.

Included in the above expenditure, the sum of \$185.95 was spent on hand digging and cleaning up of the channel near the new wharf.

GLACE BAY

Dredging

The instructions received for dredging included the dredging of a channel inside the harbour, about 1,300 feet in length, 80 feet in width, and to a depth of 16 feet at low water, involving the removal of an estimated quantity of 32,942 cubic yards scow measure of material; and the dredging of an outside channel about 1,050 feet in length, 100 feet in width and to a depth of 17 feet at L.W.S., and involving the removal of some 20,757 cubic yards, scow measure, of material.

Departmental dredge No. 4 commenced operations on July 23, 1920, and continued until October 5 following, when instructions were received to discontinue the work and for the dredge to proceed to Sydney harbour.

The work performed during the past season consisted in the improvement of the harbour proper and of about 90 feet of the outside channel. The total amount removed was 33,024 cubic yards scow measure of material.

The dredge worked within the lines and to the depths proposed when the work was undertaken, but the material on the southern side settled into the cut and shoaled it. The dredging extends out to the 10-foot contour and will be of great benefit to schooners of this draft which may enter and leave the harbour at any tide.

IRISH COVE

Irish Cove, Cape Breton county, is a farming settlement on the southeastern side of the Great Bras D'Or lake, near the mouth of East bay. The nearest railway station is at St. Peters, 30 miles distant.

In 1892, wharf was built here by the department, consisting of a block and span structure of native timber, 161 feet in length and 20 feet wide, with a 20-foot "L" at the outer end, and extending to 12 feet at low water. Owing to wear and tear and to natural decay of the timber in the superstructure and to the ravages of the teredo in the substructure, it was found impossible to repair it, and it was decided to build a new native timber pile wharf over the remains of the old one.

During 1919-20, the sum of \$499.27 was expended in procuring some of the materials required and during 1920-21, the sum of \$2,911.98 was expended in procuring the balance of the materials required for and in the construction of a new pile wharf to replace the old wharf 160 feet in length and 20 feet in width, and in grading the road connecting the wharf with the public road.

KELLY'S COVE

Kelly's Cove, Yarmouth county, about three miles south of the town of Yarmouth.

In 1920-21, the sum of \$3,785.28 was expended in the construction of a reinforcing block on the western or seaward side of the western or main breakwater, to check further movement of the work under the pressure of heavy seas. The new block is 80 feet long, 12 feet wide and from 16 to 18 feet high, substantially built of stone-filled cribwork, provided with a break the same height as the existing work.

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LIVERPOOL

Dredging

During the past fiscal year, dredge No. 1 removed 36,050 cubic yards, scow measure, commencing work August 25 and stopping October 7, 1920; beginning about 60 feet southwest of the Southern Salvage Company property, thence running seaward a length of 1,300 feet, thence turning slightly and running an additional length 950 feet to opposite the black can buoy. The first 1,300 feet was dredged 150 feet in width, the next 350 varying in width from 150 to 20 feet and the remaining 600 feet is 20 feet wide; the depths varied from 13 to 20 feet.

From the bridge towards the mouth of the harbour, for a distance of 1,100 feet, the material consists of mud and sawdust; for a further distance of 1,034 feet the material consists of mud and sawdust mixed with fine, hard, white sand, whilst the last 1,085 feet of the channel has a bottom composed entirely of this hard sand, difficult to remove.

LIVINGSTONE'S COVE

Livingstone's cove, Antigonish county, is situated on the southern shore of Northumberland strait, about two miles southwest from Cape George.

During the fiscal year 1920-21, the sum of \$2,749.06 was expended in constructing a stone-filled cribwork block on the outer end of the seaward face of the wharf, 60 feet in length, 24 feet width and 18 feet in height. The substructure is of creosoted timber up to the level of H.W.O.S.T. The seaward side and outer end is sheathed and fendered with hardwood. In addition to the new block about 35 feet by 25 feet of the outer end of the old work was rebuilt from 2 feet above H.W.O.S.T. level and about 50 cubic yards of ballast placed in the bays along the outer face of the old work. Work was in progress in June, July, August, September, October and November.

MCNAIRS COVE

Dredging

The object of this work was to dredge an area on the west side of the public wharf to a depth of 6 feet, 8 feet and 10 feet at low water ordinary spring tides.

The dimensions were as follows:—

6 foot area 150 feet long and 60 feet wide.

8 foot area 150 feet long and 75 feet wide.

10 foot area 150 feet long and 80 feet wide.

The whole project is not quite complete, as a part of the material to be excavated consisted partly of heavy stiff wharf timbers which the dredge could not remove, in consequence schooners drawing over 7 feet will have to remain 6 or 8 feet off while loading at this part of the wharf; there is also a small ledge of rock which slopes up to within 3 feet of the surface at low water, but as this is within the 6 foot area and near the shore, it does not interfere with navigation.

Quantity of material removed during the year by departmental dredge No. 11 between August 16 and September 9, was 4,665 cubic yards, scow measure, of sand and a small quantity of ballast.

MARGAREE HARBOUR

Dredging

Margaree harbour, Inverness county, is situated on the coast of Cape Breton island, about 20 miles north of the town of Inverness.

The object of the dredging was for the purpose of improving the depth of water in the channel leading into the harbour, and to fishermen's beach and for making a boat dock on the northern side of Lawrence's wharf.

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The main channel for a distance of 1,800 feet on the centre line and for a width of 120 feet was to be dredged to a depth of 12 feet at low water; the fishermen's dock was to be extended a distance of 300 feet and to a width of 60 feet by dredging to 8 feet at low water, and the dock on the northern side of Lawrence's wharf to be improved by overcasting, and the total amount of dredging authorized was 55,500 cubic yards.

The departmental dredge *No. 13* commenced operations June 9, 1920, and completed all the work specified in a satisfactory manner September 30 following.

A quantity of 66,895 cubic yards scow measure of material, consisting principally of sand, was removed including 1,400 cubic yards of overcasting near Lawrence's wharf, and from a survey made immediately after the completion of the work it was found that the amount removed in situ, not including the overcasting, was 56,979 cubic yards, made up as follows: In main channel to subgrade, 47,822 cubic yards in situ; in main channel below subgrade, 8,227 cubic yards in situ; fishermen's dock, 930 cubic yards in situ.

MIDDLE SOUTH

Dredging

Middle South is five miles southerly from Lunenburg by ferry.

During the fiscal year a quantity of 15,891½ cubic yards was removed, making a new channel beginning at a point about a quarter of a mile south from George Nauss' wharf, following along the shore and distant therefrom 100 feet more or less, through the mud bank. Previous to this dredging this area was practically dry at L.W.O.S.T. Owing to the fact that the natural channel followed along on the opposite shore, the people living on the southern side were only able to use their motor boats during high tide. Therefore, this channel, which is 4,300 feet long and 24 wide, with an average depth of 4.2 feet, was excavated for their convenience. The material was overcast.

Work was begun 16th June and finished on 16th October, work being performed by dredge *No. 15*.

MULGRAVE

Dredging

The object of this work was to provide a safe berthing for the car ferry *Scotia 2nd* and for the relief boat.

Dredging was done on a length of 250 feet by a width of 80 and to an average depth of 17 feet over the whole area by departmental dredge *No. 13* between October 26 to 29, both inclusive, when 1,157½ cubic yards of ashes and mud were removed from over solid rock.

At one or two spots, the dredge encountered very hard material which it could not remove to the required depth, but this cannot be said to affect the state of the work which may be declared complete.

NEW CAMPBELLTON

New Campbellton, Victoria county, is situated at the head of Kelly's cove, on the northeastern side of the Great Bras D'Or channel, about one mile from its entrance into the Atlantic ocean.

The work proposed consisted in the dredging of an area 360 feet in length, 160 feet in width and to a depth of 20 feet at low water springs, in front of the wharf. Spring tides rise 3 feet.

Operations were commenced November 11, 1919, by departmental dredge *No. 2* and continued until November 29 following, when the work was suspended owing

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to the lateness of the season, and during that period a quantity of material, consisting of clay and loose stones, aggregating 9,122 cubic yards scow measure, were removed.

On May 25, 1920, the P.W.D. dredge No. 2 resumed operations and continued until June 1, when she completed all the work as far as it was possible for a dredge of its type to do so, as it could not dredge close to the wharf or at the inside end of berth alongside of wharf. During that period the dredge removed 4,310 cubic yards scow measure of material, consisting of mud, clay and stone.

Department dredge No. 4 commenced operations on June 28, and continued until July 8, when the work was completed as far as it was possible, and during that period she removed 4,992 cubic yards scow measure of material.

OYSTER POND

Oyster pond, Guysborough county, is one of several large ponds in the northern shore of Chedabucto bay, which form the only boat harbours between Sand point, on the western side of the southern entrance to the strait of Canso, and Guysborough harbour, a distance of 15 miles.

During the fiscal year 1920-21, the sum of \$1,439.54 was expended in purchasing materials for extension of pier 100 feet in length by 16 feet width by 13 feet high, and in completing the construction of a cribwork block 12 feet in length by 16 feet width by 11 feet high which forms part of this 100 foot extension.

PICTOU

Dredging

During the fiscal year, dredging was done alongside the Canadian Northern Railway East pier to a depth of 25 feet at low water ordinary spring tides, on a length of 350 feet and a width of 75 feet, the average depth of the cut was 4 feet.

Work was done by departmental dredge No. 2 between June 8 and 14, 1920, when 3,859 cubic yards, scow measure, of soft clay and some ashes were removed, and work was completed according to intention, although dredge No. 2, being a ladder dredge, could not work closer to the dock than 15 feet, but it is expected that the soft material so left will find a natural slope and will not interfere with the docking of vessels.

Burnham and Morrells wharf

Dredging was done to provide a turning basin at the west side of Burnham and Morrells wharf to a depth of 10 feet at low water ordinary spring tides.

The quantity removed by departmental dredge No. 4 on June 17, 1920, was 768 cubic yards, scow measure, of soft mud, and the project was completed on a length of 100 feet by a width of 80 feet and the average depth of cut was 2 feet.

SANFORD

Sanford, Yarmouth county, is situated on the coast of the mouth of the Bay of Fundy.

In 1920-21, the sum of \$2,488.07 was expended in the construction of a widening or reinforcing block on the seaward face of the middle of the length of the breakwater. The new block is 80 feet long, 10 to 12 feet wide and 20 feet high, of the usual type of stone-filled cribwork.

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SCOTCH COVE

Scotch Cove (White point), Victoria county, is an important fishing station in the southeastern part of Aspy bay, on the northeastern coast of Cape Breton island.

During 1920-21, the outer end of the work which had settled, was levelled up, about 100 cubic yards of ballast were replaced and about 700 feet boardmeasure of plank covering were renewed; the whole expenditure amounting to \$262.91.

On December 19, 1920, a contract was entered into for the construction of an extension to the breakwater, 50 feet in length and 30 feet width, and which was to be completed on or before November 26, 1920, but as the contractors could not obtain the necessary materials, the time of completion was extended to July 1, 1921. Up to the end of the fiscal year 1920-21, the work under contract was not commenced, but it is expected that it will be commenced as soon as possible after the opening of navigation and completed within the time limit.

SHENACADIE

Shenacadie, Cape Breton county, is on the southern side of the Little Bras d'Or lake, and directly opposite the town of Baddeck.

An agitation has been on foot for some years to have a wharf built at this place, and use this harbour as a terminus in place of Iona.

On April 1, 1920, a contract was entered into for the construction of the proposed wharf in the sum of \$11,821.30 (unit prices).

The work was commenced on September 23, 1920, and was satisfactorily completed on March 17, 1921.

The wharf consists of a pile structure, 340 feet in length and 31 feet 4 inches in width, and extending to 9 feet at low water. The bearing piles are of creosoted timber with the exception of one bearing pile on each side of each bent, which can be easily renewed, and these as well as all fender piles are of native timber.

SOBER ISLAND

Sober island, Halifax county, is situated at the mouth of Sheet harbour, 60 miles west of the city of Halifax.

On April 22, a contract was let for an extension to the wharf. The extension was placed along the face of the old work for a distance of 76 feet, having a width of 20 feet at the lower end and at the upper end being 10 feet wide, with an average height of 25 feet. The old work was stripped back for 20 feet and connected up with the new work for one longitudinal and one cross tie. New top was placed over the part where the join was made. Shed was also enlarged and repaired, the enlargement being about 8 by 14 feet. Work completed during the month of July.

SYDNEY

Ingraham's Wharf

Ingraham's wharf is a private wharf in the city of Sydney, Cape Breton county, but is used for general shipping purposes by the public. It is 300 feet in length, 60 feet wide, and extends to 24 feet at L.W.S. Spring tides rise 5 feet.

The object of the dredging was to make a berth 100 feet wide and about 70 feet long and dredged to 15 feet at low water on the northern side of the inner end of the wharf, and the estimated quantity of material to be removed to effect the desired improvement was placed at 1,500 cubic yards scow measure.

Departmental dredge No. 13 commenced operations November 17, 1920, completed on November 20 following, and during that period the material removed was

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1,632 cubic yards scow measure, and consisted of mud, clay, and stones. The work was done in a satisfactory manner and the proposed depth was obtained over the entire area, excepting at the inner end of the wharf, where the dredge could not work with safety closer than from 12 to 15 feet from the faces of wharf.

McKinnon's Wharf

McKinnon's wharf is a private wharf in the city of Sydney, but is used for general shipping purposes by the public.

It is about 200 feet in length and 40 feet wide, extending to 20 feet at L.W.S., which rise here 5 feet.

The object of the dredging was to improve the depth of water at the sides of the wharf by dredging berths on each side, 120 feet long and 40 feet wide, to a depth of 16 feet at L.W.S.

Departmental dredge No. 4 commenced operations on October 28, and continued until 29th, when owing to a weakened boom, the dredge had to be laid up. During these two days she removed 768 cubic yards scow measure of material, consisting of clay, gravel, and rock.

On November 15, 1920, the departmental dredge No. 13 resumed the work and completed it on November 25 following, as far as it was possible to do so with safety.

The required depth of 16 feet at L.W.S. could not be obtained over the whole area desired on the inner end of the southern side of the wharf, owing to the shoalness of the water, which prevented the scows from floating, and permission could not be obtained to overcast the material in the adjoining water lot, but about 100 cubic yards of material were overcasted and placed on the wharf to fill up a hole where ballast had been displaced.

The total quantity of material removed, consisting of clay, gravel, and rock, is 4,113 cubic yards, scow measure.

Sydney Foundry and Machine Company's Wharf

The Sydney Foundry and Machine Company's wharf at Sydney, N.S., is a private wharf and used entirely by the company for their purposes.

Departmental dredge No. 2 commenced work May 14, 1920, and suspended operations on the 17th following, and during this period the plant was actually dredging only 14 hours, 7 hours being lost on account of tide being too high, and 9 hours being lost in making repairs. The amount of material removed was only 240 cubic yards scow measure.

The material encountered proved to be much harder than anticipated, and too hard for dredge No. 2 to make a good showing in: the plant could not dredge to a greater depth than 27 feet.

On suspension of operations it was decided that dredge No. 2 could not work to advantage here and was ordered to proceed to New Campbellton.

YARMOUTH

(1) The object of the dredging was,—

(a) The widening of the channel or inner harbour in front of the wharves.

(b) The removal of a small amount of silted material caused by the operation of the dredges, that prevented the full operation of the marine slip railway.

(2 and 3) The dredged area (a) is part of a strip 2,900 feet long, situated on the western side of the harbour, varying from zero to 350 feet in width from zero to 26 feet in depth.

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1920-21, the dredge started from a point south of the new Burrill-Johnson Iron Company's south wharf, situated in the upper portion of the harbour, and worked south a distance of about 1,700 feet, covering an area varying from 140 to 380 feet in width and leaving the bottom at the end of the season from 18 to 19 feet below L.W.O.S.T.

The portion of the harbour thus dredged gives a width of from 400 to 800 feet of navigable water. The portion of strip yet to be removed is about 1,200 feet long, from 300 to 0 feet wide and contains about 188,000 cubic yards, place measurement. Completion of area already dredged over will require an additional 60,000 cubic yards of dredging, and on account of the silting up of the upper end of the harbour, northward to the upper end of the new Burrill-Johnson Iron Company's wharves, there is not sufficient water for proper navigation, to remove this an additional 70,000 yards of place measurement dredging will be required.

(b) Besides the above, about 2,500 cubic yards, place measurement, was removed to a depth of from 1 to 6 feet from an area in front of, and from over, the track of the marine slip railway, the area being an average of from 400 feet long and from 40 to 90 feet wide.

The material removed during the season was a stiff compacted fine silt that was readily water borne when disintegrated, but with sufficient argillaceous material to form a comparatively solid surface when deposited.

The amount of material removed from the west side of the harbour area during the season is 234,200 cubic yards, place measurement. This does not take into account any possible silting over area after dredging and before last survey was made.

Work was done by the Government suction dredge *Northumberland No. 5*, started May 25, and stopped November 9, 1920.

PRINCE EDWARD ISLAND

BAY FORTUNE

Dredging

Bay Fortune harbour is on the eastern coast of Prince Edward island at the mouth of the Fortune river, here emptying into Fortune bay.

Dredging operations were resumed May 8, and carried through to a satisfactory completion July 17, the quantity of material removed between the above dates being 10,848 cubic yards, scow measurement, of sand, brick clay, gravel and shelly rock, making a total quantity of 17,466 cubic yards, scow measurement, removed during the two seasons in connection with the improvements.

The work done consisted in forming a channel 80 feet wide through the outer bar from the 7-feet contour in Fortune bay into the head-block of the breakwater a distance of about 1,200 feet and cleaning out balance of channel inward for a distance of 900 feet or to a point 50 feet beyond the two small piers located on either side of inner portion of the harbour; suitable loading berth as well being dredged along channel face of each pier. The least depth in any part of the channel after completion was 7 feet at low water spring tides and as no indications of any filling in have yet been observed a reasonable permanency is expected.

CHARLOTTETOWN

Dredging

During the period June 21 to August 20, further improvement of the harbour was effected by departmental dredge No. 2, operating first at the dock between the Queen's wharf and Buntain and Bell's wharf completing work suspended there on

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the close of navigation of the previous season. A berth was formed 345 feet long, 80 feet wide at outer end and narrowing down to 50 feet at inner end, grading from 20 feet of water at low water spring tides on outer end up to 14 feet at inner end. On the east side of Buntain and Bell's wharf, a berth 425 feet long averaging 50 feet wide was then formed; outer half carrying about 20 feet at low water, spring tides, inner half grading up to 12 feet. Work was completed July 8, 9,465 cubic yards, scow measurement, of principally mud and sand being removed. Owing to narrow width of inner portion of the dock on eastern side of the wharf it was found necessary to overcast 130 cubic yards of material during progress of the work; all of which was afterwards redredged and scowed away.

The dredge then commenced operations on July 8, on the west side of the Canadian Northern Railway wharf on a berth 400 feet long and 110 feet wide, the outer half widening to 190 feet, 75 feet from outer end. The depth of 20 feet at low water spring tides was provided along the outer 225 feet of the wharf, the remainder carrying for the most part 16 feet or better. Work was completed July 28, 11,115 cubic yards of sand, silt and soft mud having been removed.

On July 28, dredging was commenced by the same plant at the west side of the wharf of Messrs. A. Pickard & Co., cleaning out a berth 450 feet long, averaging 80 feet wide, the outer 100 feet widening to 120 feet while the inner 50 feet narrows to 30 feet. A minimum of 14 feet was provided over the outer 300 feet, the inner part grading up to about 12 feet at low water spring tides. Operations were completed August 20, 12,000 cubic yards of sand, mud and clay being removed.

Authority was granted to undertake some cleaning up of a dock located between the Marine Department and Buntain, Bell and Company's wharves before laying up dredge D.P.W. No. 11 for the winter season, and operations were commenced by above dredge on September 24, and carried on until October 30 when instructions were received to discontinue work and lay up the dredge. During this period, 7,140 cubic yards of mud and brick clay were removed and considerable improvements made but the work was not completed to the depths desired, some 18,000 cubic yards, still requiring removal to satisfactorily clean up the whole dock, which work is now proposed for dredge D.P.W. No. 9 on opening of navigation next season.

GEORGETOWN

Dredging

During the past season, at the request of the local Government some cleaning out of the docks was undertaken by departmental dredge No. 9, operations being commenced July 23 and completed August 7. On the Georgetown side 50 cubic yards of silt were removed from a shoal immediately in front of the landing slip, while at Lower Montague 1,326 cubic yards of mud, sand and silt were scowed away and 695 cubic yards overcast onto the wharf from where removed by the local Government. A cut 200 feet long was made up to the landing slip having an average width of 50 feet and carrying a depth of 7 feet at low water, but owing to the very soft nature of the material surrounding the wharf some silting in may be expected to take place from time to time.

NORTH LAKE

Is situated on the north coast of Prince Edward Island, about five miles west of East Point and two miles north of Elmira station.

With a view of making permanent a new outlet formed into the lake by fall storms in 1917, a contract was entered into September 23, 1919, for the construction of channel protection piers, entailing an expenditure of approximately \$27,000; the description of the work to be built being fully described in annual report for 1919-20.

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The contractors did not commence actual construction work until June 28, 1920. further delays were occasioned from time to time through sickness and other unforeseen difficulties preventing completion of the work by November 23, as specified in the contract.

Operations were suspended for the winter season January 4, on which date the work on the eastern side of the harbour comprising pier and beach protection having lengths of 330 and 107 feet respectively was completed with exception of the 4-inch top covering and boiler plate reinforcing on outer ends of the pier.

The time of completing the contract was extended by the department to August 31, 1921, and the contractors have made arrangements for the balance of material required; a portion thereof is now at site, the intention being to resume operations immediately the situation is free from ice.

The value of the work completed at end of fiscal year being estimated at \$12,840.

SOURIS

Souris harbour is situated on the southeastern coast of Prince Edward Island, about 16 miles southwesterly from East Point.

The entire seaward side of the breakwater is protected by a rough stone slope and as serious settlement had occurred in that portion immediately in front of the extension built in 1914, tenders were called for the delivery and placing of from 4,000 to 5,000 cubic yards of stone along this section, and a contract was entered into on August 11, 1919, for the work at a price of \$10.75 per cubic yard in place.

Delivery of stone under this contract first commenced on September 10, 1919, and continued until November 8, when suspended for that season owing to weather conditions, 1,714 cubic yards of stone having been delivered between the above dates. The contractors resumed operations again on July 3, 1920, carrying on continuously until September 27, on which date it was found that the 3,118 cubic yards delivered in that time had brought the height, length and slope of the work satisfactorily up to the requirements of the specification. Delivery of stone was therefore discontinued.

During the two seasons work was in progress, 4,832 cubic yards of stone all procured from the quarry at Wallace, N.S., and ranging from one to four cubic yards were delivered and placed along the seaward side of the outer 460 feet of the breakwater at a cost of \$51,944; the stone being laid at an approximate slope of two to one.

VERNON RIVER

Dredging

Vernon, or Port Vernon as it is locally known, is situated at the head of navigation of the Vernon river, about two miles from its entrance into Orwell bay.

During the past season, shoals and points in the channel below the wharfs have been reduced by dredging so that a depth of 9 to 10 feet is carried at low water spring tides with a minimum width of 100 feet. Ample room has also been provided immediately below the wharfs so as to afford suitable approach and clearance. Operations were commenced August 25, by D.P.W. dredge No. 9, first in cleaning up the area in vicinity of the wharfs where a depth of nine feet and better at low water is now carried over a basin some 143,600 square feet, commencing with a width of 100 feet a distance of 500 feet below the wharfs and widening to 300 feet at a point 100 feet below from where the width decreases to the distance between the wharfs being 250 feet at their upper end; the approaching channel was then widened to 100 feet for a distance of 1,150 feet below the wharfs, carrying the same depth, entailing in all the removal of 31,955 cubic yards, scow measurement, of soft mud. The removal of 10,200 cubic yards of mud was then completed from the second turn in

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the channel about 2,000 feet below the wharfs, greatly reducing the point here, and widening the 9-foot channel way to about 200 feet at the point of the turn, greatly facilitating its navigation by sailing vessels. Work was completed October 23, 45,155 cubic yards of mud being removed in connection with the improvements which should give satisfactory results for many years.

WOOD ISLANDS

Wood Islands harbour is situated about 30 miles from Charlottetown southeasterly, and 15 miles west from Cape Bear, being the most southerly point of Prince Edward Island.

The north breakwater, which has a total length of 2,450 feet, is now about a complete wreck, its upkeep not being considered a commercial necessity since the opening of the Murray Harbour Branch of the Canadian Northern Railway, (Prince Edward Island Division), which now affords shipping facilities for the district. A large portion of the south breakwater, which in itself forms a harbour of refuge for various small craft, is comparatively new work, particularly the two outer 100-foot blocks, and is of such public importance as to justify its upkeep.

During the past season, July 12 to August 10, the sum of \$601.68 was expended in connection with placing 300 cubic yards of ballast stone in various portions of the seaward side of the south breakwater where settlement had occurred, and also renewing the 4-inch covering where required.

NEW BRUNSWICK

BACK BAY

Back bay is situated on an arm of L'Etite harbour, about four miles west of L'Etang.

During 1920-21, the old timbers in the top of the pier-head and the outer block were torn down four tiers, and rebuilt with two tiers of round timber, stringers and covering, to bring the work to the elevation of the approach. A floating slip was constructed alongside the pier-head and a freight shed, 12 feet by 20 feet, together with a gallows frame, for handling freight, were built on the wharf. This work was in progress between 7th October, 1920 and 14th January, 1921. During the month of March, 1921, the freight shed and slipway were painted.

Expenditure for 1920-21 was \$3,852.90.

BATHURST

Dredging

In the Main or Nepisiquit channel 17 feet of water at low water spring tides is called for under the present project, but no doubt a depth of 20 feet will in time be adopted to meet the requirements of shipping and enable vessels to take full loads inside and sail at ordinary high tides.

Dredging has been in progress since 1913, except in the season of 1918, either with contract or departmental dredges or both, and the Main channel and turning basin at its head also the channel from the Middle river, leading to the Bathurst Lumber Company's mill number 1 and the departmental wharf have been dredged throughout but not as yet to the full width or depth.

There is a least depth of 16 feet in the channel across the outer bar but at the point where this depth occurs, about 3,400 feet beyond the harbour entrance, the channel is on the north side of the cut and is very narrow, the depth on centre line

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being only 13.9 feet, and over a considerable length the 16-foot depth can only be counted on in a width of about 100 feet. Inside the harbour, the least depth on centre line between the Forks and the entrance is about 13 feet but about 13.5 feet can be counted on though the channel with this depth is, at two or three points, barely 100 feet wide. From the Forks upwards, the depth remains at about 16 feet. To complete the present project, the removal of about 580,000 cubic yards is still necessary, including about 67,000 yards in a branch channel along the town shore to the Eddy Company's mill.

The general dimensions of the work are:—On the Main or Nepisiquit channel, about 3.6 miles long from the entrance to the berth and turning basin at the pulp mill, the required width of cut is 200 feet increased to 300 to 350 feet at the turns and depth at low water to be 17 feet. The turning basin and berth together will have an average width of 450 feet, length of 900 feet and depth of 21 feet at low water. In the branch channel, the proposed cut is 2,000 feet long and 100 feet wide with 12 feet at low water. The Middle river channel is 4,500 feet long, proposed depth 15 feet at low water and width about 100 feet. The cut across the outer bar is 1.7 miles long, required width 200 feet and depth 17 feet at low water.

Between May 21 and October 7, 1920, dredge *P.W.D. No. 3* worked over the various shoals between the Forks and the outer end of the outer channel except some sections on the south side of the latter where the material is too hard for removal by this dredge, and the channel was widened and deepened at different points; a least depth of 16 feet was found but shoaling has evidently occurred since and is to be expected.

The quantities removed at the Outer bar were 31,665 cubic yards, at Ripple bar 14,243, at Ballast bar 20,968 and at Seal bar 39,334, a total of 106,210 cubic yards.

The material at the Outer bar is sand with firm clay below in places; on the Ripple, Ballast and Seal bars it is sand to fine gravel, partly loose and partly compact; from the Forks upward, the material varies from soft to stiff clay, with sand on the Tetagouche bar at the lower end of the Middle channel.

BUCTOUCHE

Dredging

At different times since 1913, dredging has been undertaken on the three shoals in the harbour channel, which have or had a limiting depth of about 10 feet at low water spring tides and there now remains to complete the channel to a depth of 13 feet a section of the outer bar or shoal having the least depth above stated.

During the season of 1920, dredge *P.W.D. No. 2* attempted to dredge this section but the material was so fine it could not be held in the barges and the dredge was removed to the then remaining Inner shoal about 1.6 miles below the town; the length of this shoal was about 2,650 feet and the least depth about 9 feet. The dredge worked on the Inner shoal between July 17 and September 25, making a cut 100 feet wide with 13 feet at low water ordinary spring tides, but shoaling has occurred at either end of the cut leaving a least depth of 11.2 feet, 55,130 cubic yards of soft mud were removed.

KOUCHIBOUGUAC

Kouchibouguac harbour, Kent county, is situated on the westerly side of the Northumberland strait, 12 miles north of Richibucto harbour and 18 miles south of Miramichi bay. It is protected from the sea by long beaches on which the works are situated.

Storms have made openings in the beach which at different times have been closed with dams. The last break occurred in November, 1914, and the diversion of a

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large part of the tidal flow through this opening has seriously affected the depth in the main entrance, reducing it to such an extent that vessels during the past seasons have had difficulty in entering the harbour even at high water.

During 1920, a survey was made and contract plans for a dam and breastworks were prepared. It was considered, however, most economical and satisfactory to undertake the work by day labour and work was begun on 15th November and continued by this method until February 26, 1921, when the dam was completed. The total length of the dam is 270 feet and extreme height 17 feet, this height extending over a length of 100 feet near the centre and decreasing at each end to about 4 feet, the top being $3\frac{1}{2}$ feet above high water. The width is 20 feet at the bottom and 17 feet on top. 138,000 cubic feet of brush were used in its construction, 5,730 lineal feet of fascines and 321 cubic yards of large stone, all of which were obtained on the mainland and hauled to the site on the ice.

On January 24, a strong tide carried away a length of about 60 feet of the deepest section of the dam, before it had been weighted with stone, but this was rebuilt and it is expected that the dam will, before long, be fully protected by a new beach which is forming outside since the current through the opening has been stopped.

Thirty thousand cubic feet of brush and 700 pickets were cut and hauled to the beach and are on hand for the construction of breastworks required to raise the low sections of the beach at either side of the dam.

Expenditure for the fiscal year was \$3,667.95.

Dredging

The harbour consists generally of a shallow lagoon about 4 miles long by 1 to $1\frac{1}{2}$ miles wide.

The main channel is that from the mouth of the Kouchibouguac river to the harbour entrance which is about 12 miles north of Richibucto and 18 south of Miramichi bay.

Between 3rd and 24th June, 1920, at three points or shoals in the upper half mile of the channel dredging was done by day labour with a small orange peel dredge belonging to the St. Charles Agricultural Society and rented at the rate of \$20 a day including wages of engineer and cost of gasoline, oil and repairs.

At the uppermost shoal at the river mouth, a channel 125 feet long and 50 wide was dredged to a depth of $5\frac{1}{2}$ to $7\frac{1}{2}$ feet at low water where there was previously a least depth of $3\frac{1}{2}$ feet; about 1,800 feet below the first shoal, a point on the south side of the channel about 150 feet long and 60 in greatest width was removed to a depth of 5.2 to 7.3 feet, the previous depths being 2.9 to 5.6 feet, and about 2,700 feet below the first-mentioned shoal, a point on the south side of the channel about 165 feet long and with a maximum width of 35 feet was removed to a depth of 5 to $8\frac{1}{2}$ feet where the previous depths were about 4 to 6 feet.

The quantity of material removed was 1,577 $\frac{1}{2}$ cubic yards, barge measure, and consisted of mud, sand and shells, and the cost was \$880.47 or 55.8 cents per cubic yard.

NORTHWEST MIRAMICHI RIVER

Dredging

Shoals occur in the $3\frac{1}{2}$ miles below Redbank, the head of navigation, and are known as Lawlors shore, Cassilis shoals and the Goodfellow bar.

Between 29th June and 8th October, these shoals were dredged on a width of 100 feet and to a depth of $4\frac{1}{2}$ feet at low water, range of spring tide being 7 feet.

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The cut at Lawlors shore was 1,700 feet and at Cassilis 450 feet long. At the Goodfellow bar, cuts were made removing the points of the shoal on the northern side and upper end of the channel for a length of 500 feet and width varying from 0 to 50 feet and on the southern and lower end of the channel for a length of 750 feet from 0 to 60 feet wide.

The quantities removed were 6,505 cubic yards at Lawlors shore, 2,653 at Cassilis and 2,397 yards at Goodfellow bar. The material was sand and gravel.

The work was done under contract with the Miramichi Dredging Company, Limited, at a cost of .54½ cents a yard, barge measure, and the cost was \$6,827.72.

Later in the season, a heavy freshet carried a considerable quantity of material over the area dredged at Lawlors shore and left a long section and two points, about 1,000 feet, with less than the required depth, the least depth being 3.5 feet; least navigable depth in the channel is now 3.7 or about one-half a foot less than was obtained in the previous winter.

Newcastle to Bridgetown

The shoal halfway between Bridgetown and Newcastle has been the chief obstruction to deep-water shipping from Bridgetown. This shoal was dredged in 1906 and again in 1910, but since 1910, parts have remained at the dredged depth while over other parts of the cut shoaling has occurred to the extent of about 1 to 3 feet; the general depth over the shoal is about 17 feet at low water and completion to this depth would give 21 to 23 feet at high water allowing vessels to load to 20 feet at the Bridgetown wharf. The least navigable depth in the channel is now about 15 feet at low water on account of the shoals and lumps, or scarcely more than the previous limiting depth.

Between 5th and 25th October, work was done by dredge *P.W.D. No. 2* in a section of the channel 2,130 feet long to a general width of 140 feet except at turns towards the ends of the cut where it was widened to about 180 feet; the depth called for was 16 feet at low water. Material removed was sand, gravel and clay, and the quantity was 11,296 cubic yards, barge measure.

PETIT ROCHER

Petit Rocher, Gloucester county, is a farming and fishing settlement on the Bay Chaleur, 12 miles north of Bathurst.

A breakwater was constructed between 1905 and 1908.

On December 2, 1919, a contract was entered into with Mr. T. P. Charleson for repairs to the breakwater. Work began on May 20, 1920, and consisted of placing 2-inch plank over the old covering of the pierhead on a length of 200 feet and average width of 17 feet; also over the outer section of the approach on a length of 171.7 feet and width of 9 feet; replacing 972 feet B.M. of 2-inch plank at the outer end of the pierhead which were carried away by a storm on October 2, 1920, and building and sinking in place a protection block at the outer end of the pierhead. The dimensions of the block are 50 feet long on the face next the breakwater, 20.2 feet long on the outside face, and 20.9 feet wide on top. 730.99 cubic yards of large stone were placed to form a talus along the outside face of the pierhead on a length of about 125 feet, and 100.12 cubic yards on the talus along the northern side of the approach. 60 cubic yards of small stone and gravel were placed to grade and level the roadway near the approach to the breakwater. The contract was completed on December 2, 1920.

Expenditure for the fiscal year was \$13,285.08.

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RICHIBUCTO CAPE

Richibucto cape lies on the Northumberland strait, 6 miles southeast of Richibucto harbour.

The works consist of a main breakwater and a southern pier inclosing a sheltered harbour about 2.8 acres in extent. They were begun in 1908 and since their construction the fishing business at Richibucto cape has doubled, being now over \$50,000 in value annually.

Between July 24 and November 13, 1920, a mattress 44 feet long, 27 feet wide and 3 feet thick was constructed for a foundation, and on it the end block, 44 feet long, 25.4 feet wide and 10 tiers high, of the pierhead of the southern pier was built. Two tiers of lumber were laid on the southern pier for a length of 170 feet inwards from the pierhead to bring the approach to full height, and the latter for a length of about 280 feet was filled with brush, stone, and gravel. The pier was sheathed on the whole outside face, and on the inside face for a length of 124 feet from the outer end and, after a gap of 195 feet, for a further length of 58 feet, and covered with plank for about 58 feet at the shore end of the pierhead. The temporary breakwater was removed, and the block was raised with extra timbers about 2 feet at the centre, levelled, and new covering and cap timbers were laid. The inside face and upper section of the outer face was sheathed with hardwood. The 30-foot square block at the end of the pierhead was covered with plank, cap timbers and fenders were completed, and a slip 5 feet wide and $11\frac{1}{2}$ feet long was cut in the inside face. Repairs were made on the original pierhead for a total length of about 95 feet by placing timbers upright inside the outer face and filling the adjoining bays with ballast. The scow used in connection with the work was wrecked by a storm, but the planking was saved and used for sheathing and covering the southern pier. At the end of the fiscal year, between 11th and 31st March, 1921, a haul-up slip, 30 feet long, was completed on a slope left in the end of the southern pier. The slipway is $3\frac{1}{2}$ feet wide and formed of stringers and 6-inch diameter rollers, the rollers being of wood with iron rings at each end and running on 1-inch bolts turning in iron slips. The slip is for the use of fishing boats which can be hauled up there at all times of tide and avoids a delay of beaching the boats at high tide only.

Expenditure for the fiscal year was \$4,491.25.

ST. CHARLES RIVER

Dredging

The St. Charles or Big Aldouane river flows into the northwest arm of Richibucto harbour about four miles northwest of Richibucto.

Between 5th and 9th July, 1920, 394 cubic yards, barge measure, were dredged at a cost of 66 $\frac{2}{3}$ cents per cubic yard; work was done across three shoals lying about $1\frac{1}{4}$ to $1\frac{3}{4}$ miles below the head of navigation and about $3\frac{1}{4}$ to $3\frac{3}{4}$ miles above the mouth. The lower cut was about 250 feet long and 30 feet wide; the middle cut, about 600 feet above the lower, was about 140 feet long by 30 wide; and the upper cut, about 500 feet above the last, about 75 feet long and 15 wide. The depth given was about $\frac{1}{2}$ foot at low water, $\frac{1}{2}$ to $1\frac{1}{2}$ feet of sand being removed.

ST. JOHN

Negropoint Breakwater

Authority was given to build a concrete breast wall on Negro Point breakwater, in order to stop the littoral drift being blown over the crest of the breakwater into the harbour. The wall was extended for a distance of 470 feet, being as far as the shingle behind the breakwater extends. The work was carried on continuously, and completed October 20. The total expenditure for the year was \$4,611.72.

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Deep Water Berths

Dredging.—During the year, the deep water berths were dredged to a uniform depth of 32 feet below low water. The work was done partly by dredge No. 1 and partly by contract. During the season, the departmental dredge removed 20,237 cubic yards, and the contractor 35,001 cubic yards. Of these amounts, the departmental dredge removed 6,060 yards, and the contractor 17,365 at the Canadian National Railway's Long wharf, on the east side of the harbour. The total expenditure for contract dredging was \$11,909.20.

Grain Conveyors

Messrs. J. A. Grant & Co.'s contract for the construction of grain conveyor galleries from the Canadian Pacific Railway's elevator to berth 15, West St. John, was completed at the end of August, the expenditure for the fiscal year being \$35,149.30.

The contract for the installation of the conveyor equipment, which was awarded the Fegles Construction Company on May 20, was completed end of January, 1921, and was very satisfactorily operated during the shipping season. Expenditure, \$64,020.33. Total expenditure, grain conveyors, for the year, \$99,169.63.

Out of the total expenditure for equipment, the Canadian Pacific Railway contributed \$12,529.73, being the cost of the work of connecting up the equipment inside their elevator.

Courtenay Bay

During the year, work was carried on continuously until the end of February, when the contractors suspended work on account of the appropriation being exhausted. The breakwater has been extended the full length of 2,500 feet and the work of laying large stones on the outer slopes has gone on continuously. Several storms have occurred during the year, but no material damage was done to the breakwater, although the contractors sustained damage to their derricks on two occasions.

Submarine Rock

Work proceeded continuously up to the end of December in the excavation of submarine rock at the entrance to the dry dock. The rock is enclosed by a close-sheeted timber cofferdam, which has given entire satisfaction. The area enclosed is 6½ acres, and is kept dry with two electrically operated centrifugal pumps, one 6 and one 8 inch. In addition there is an 8-inch standby pump. The total quantity excavated is 119,480 cubic yards. There remains to be excavated, 20,000 yards, which is intended to be left as a further protection to the dry dock, until the front walls are constructed and the gates erected.

Dredging.—In October, the 24-inch suction dredge *Tornado* commenced dredging in the basin, and very satisfactory progress has been made during the time the dredge has been at work. The material dredged is being placed behind the stone fill to the north of the dry dock site, where a considerable area is being reclaimed. The expenditure for the fiscal year was \$1,340,523.79.

General Harbour Maintenance

During the season, considerable repairs had to be made to the various wharves and sheds in the harbour. At No. 7 wharf, the whole floor of the shed was renewed, and the wharf repaired; the roof of No. 15 shed was repaired; vertical fenders at No. 15 and No. 16 wharves were renewed where worn, and the floating fenders were repaired. The total expenditure for harbour maintenance for the period was \$59,008.69.

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Dredging

The main entrance channel to the harbour together with the various deep water berths are maintained at a depth of 32 feet below low water ordinary spring tides, as considerable littoral drift annually accumulates in the channel and berths, the quantity varying from year to year according to the frequency of storms.

During the past fiscal year, the areas dredged in the various berths were as follows:—

Berth	Contract dredging			Department plant	
No. 1..	370	by	30 feet		
" 2..	460	"	15 "		
" 3..	400	"	15 "		
" 4..	375	"	15 "		
" 5..	460	"	20 "		
" 6..	770	"	15 "		
" 7..	620	"	15 "		
" 7 Extension..	225	"	50 "		
" 15..	865	"	15 "	.. . . . .	700 by 100
" 16..	610	"	15 "	.. . . . .	600 " 100
Long wharf..	540	"	30 "	(East side)	400 " 35
	140	"	30 "	(East side)	
	400	"	50 "	(West side)	

The material removed was principally gravel and mud. The total quantity dredged in the various berths during the year was 55,238 cubic yards, of which 20,237 were dredged by the departmental dredge *Fielding* and 35,001 by contract. The contract price was 32 cents per cubic yard, scow measure, the contractor being Mr. J. A. Gregory of St. John. All the dredging was done during the months of September to February.

SHIPPIGAN GULLY

Shippigan gully, a passage between Shippigan island and the mainland, much used by fishing and other vessels in passing from Bay Chaleur to the Gulf of St. Lawrence, is situated 56 miles east of Bathurst.

Works were begun in 1875, to improve the channel at the gully in which there was then a least depth of only 3½ feet at low water. The construction of dams and breakwaters, concentrating the current in one channel, increased the depth to nearly 6½ feet in 1898, 8 feet in 1903-4, and about 8.5 feet at low water or 14.3 feet at high water ordinary spring tides in 1915.

On September 27, 1919, a contract was entered into for general repairs and the construction of protective blocks at the western breakwater and by the end of the fiscal year 1919-20, the piles were all driven for the repair of the western breakwater and were secured with walings and cross-ties, and the breakwater was partly filled with brush and stone.

Work was resumed on April 7, 1920, and during the season of 1920, 6,580 cubic feet of brush, 236½ cubic yards of ballast and 8,685 feet B.M. of 4-inch covering were placed in and on the breakwater, completing the repairs of that work. A cribwork block 31.4 feet long, 23.3 feet wide and 20 feet high was built and sunk in place as an extension of the return pier, for the protection of the latter which was being undermined. The block is sheathed on three sides and filled with ballast. An ice-breaking block was built and placed about 250 feet from the inner face of the western breakwater which had been at different times damaged by ice carried down by the current and winds from Shippigan harbour. This block is 33 by 25.3 feet on the bottom and 16.3 by 20.5 feet on the top, being battered at the rate of 2 to 1 on the harbour side which is sheathed from the top to within 4 feet of the bottom with 6-inch hardwood plank. The three other sides are sheathed with 4-inch plank from the top to within 4 feet of the bottom. The contract was completed on August 27, 1920.

Expenditure for the fiscal year was \$9,600.75.

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WILSON'S BEACH

Wilson's beach is situated on the northwest side of Campobello island, 14 miles south of St. Andrews.

During 1920-21, 49,147 feet B.M. of 10-inch by 10-inch creosoted British Columbia fir was purchased for the purpose of sheathing the seaward side and end of the breakwater-wharf, and to strengthen and further protect it from damage by sea-worms. On account of the lateness of the delivery of this sheathing, the work could not be carried out during this fiscal year. One thousand (1,000) bolts were purchased and stored at the work, to be used next season in securing the sheathing. On November 12, the construction of a floating slip, alongside the wharf, was begun, and by December 25, 1920, it was completed and in good working order.

• Expenditure for 1920-21 was \$8,077.83.

PROVINCE OF QUEBEC

ANSE AUX GASCONS

Anse 'Aux Gascons, county of Bonaventure, is situated on the north shore of Baie des Chaleurs, 7 miles east from Port Daniel.

The breakwater-wharf was destroyed in 1916-17-18, and to replace it, a contract was entered into for the construction of a new work 400 feet in length by 20 to 30 feet in width to be completed on or before March 1, 1920, but work had not been commenced at the close of the fiscal year.

BATISCAN

Dredging

Batiscan is situated on the north shore of the St. Lawrence river, in the county of Champlain, between Three Rivers and Quebec.

Authority was given to continue dredging which had been commenced during the preceding year, and which had not been completed.

The work consisted this year in the dredging of a part of the western channel leading to Batiscan wharf, to a depth of 12 feet, below low water level, on a total area of 449,952 square feet. The quantity of material removed was 47,029.8 cubic yards scow measurement of sand.

Dredging was done by dredge *P.W.D. No. 116*, was commenced on 9th of June and discontinued on August 18, 1920.

BERTHIER (en bas)

Bertheir (en bas) in the county of Montmagny, is situated on the south shore of the St. Lawrence river, 29 miles below Quebec.

On September 28, 1919, a contract was awarded at an approximate price of \$17,556.80 for the reconstruction of the superstructure of the wharf which had been carried away by a storm. The work was completed during the first part of the present fiscal year.

It is a closed-face cribwork with stone ballast and vertical posts on both sides of face-timbers, to solidly bind the new work to the old one. The total amount expended on this contract was \$19,047.

Repairs were made to the shed and to the eastern slip which was entirely rebuilt. The whole work was completed in May, 1920.

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BIC (POINTE A COTE)

Pointe a Cote, in the municipality of Bic, is a favourite summer resort located a mile east from the village of Bic.

The wharf built at the end of the point along the Islet au Massacre had been abandoned and closed to traffic, owing to its partial destruction in 1912.

Work done during the fiscal year consisted in the making of an opening 55 feet in length, through the wharf and the cleaning up of this gap to permit flow of stagnant water lying between Islet au Massacre, the shore and the wharf.

Expenditure during the fiscal year was \$480.90.

FABRE

The pilework wharf, built in 1905-06, was damaged when Lake Timiskaming ice moved in 1920. The piles along the north side of approach and landing-head were broken on a distance of 160 feet and the approach deck settled to an angle of 45 degrees.

A temporary approach, 8 feet wide, was built in June along the south side of original approach, at a cost of \$101.50.

During the summer months, materials were secured to rebuild the approach and to complete the extension, 32 by 72 feet at east side of landing-head, on which work had been discontinued in March, 1920.

Construction was started November 29 and continued until December 20; operations being resumed January 5, 1921, and completed March 9. During this period, the approach to the wharf and a strip, 16 feet in width to the landing face were rebuilt in pilework on a total distance of 256 feet; the extension in rear of landing-head was completed and a new freight shed, 28 by 56 feet was built.

Expenditure during the fiscal year, \$5,292.95.

GRANDE RIVIERE

During the fiscal year, part of the latest damage done to the landing pier was repaired.

One hundred and sixty feet by forty, giving 5,900 superficial feet, were raised an average of 12 inches and in places 2 feet, and the flooring renewed. Three thousand cubic yards of stone ballast were placed in outside sections.

The head of the pier, partly cut in a storm by the chain of a ship anchored alongside, being weakened by the teredo and limnoria, was carried away by ice and storms and had to be partly repaired.

Steel sheet piling were secured into place along the outside end and 10 feet back along face-works and well anchored both at front and top with the aid of a diver. Concrete bags were deposited outside so as to secure the lower portion of the piles, and inside, especially in the southwest corner, so as to build the whole of the outside end in mass concrete with back filling of stone ballast. Ten days' more work and the repairs at said outside end would have been completed when, on 3rd of November, a heavy sea from the southeast smashed in and broke all the native timber piles along outside facework for a length of 40 feet, carrying away seventeen of said piles just back of steel sheet piling cofferdam. This allowed the sea to rush in and to open up our cofferdam in the northwest corner first and then later the outside end facework, spreading about our concrete just deposited, together with all the stone ballast.

The diver reported that the whole of the framework, back of the native sheet piling was completely eaten up to H.W.L. and that all the stone ballast for a distance of at least 40 feet ashore of our repair works was partly gone.

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Means were at once taken to close, by a temporary hardwood sheathing, the 15-foot gap, and by a heavy rip-rap along outside face, to break the impact of the sea against the south outside dismantled facework.

As we had not at hand and could not get on time the heavy rip-rap needed, some 400 of the reinforced concrete blocks prepared for sheathing were lowered down along the outside south facework, together with all the heavy stone rip-rap on hand, and the top of the piles were secured with walings made out of steel piles.

There is approximately \$2,800 of materials bought and delivered unused besides sheet piling and plant.

Total expenditure, \$9,841.45.

HARRICANAW RIVER

Dredging

The work in connection with the assembling and building of plant at Amos, Que., to be used for dredging on Harricanaw river, was resumed April 16. The dredge, gasoline towboat, house boat on pontoons and dump scow on pontoons were completed and in commission by the end of July.

A midstream channel, 50 feet wide and 440 feet long, to grade depth 6 feet, was excavated opposite the mouth of Landrienne river; during the period July 31-August 27, 3,416 yards clay (scow measure) was removed and spoiled in deep water downstream. Four spar buoys were placed to mark the new boat channel.

The plant was then removed to lake Demontigny, where a cut, 22 feet wide and 2,450 feet long, to grade depth 6 feet, was made across the bar obstructing navigation. During the period September 11-October 29, some 6,700 yards clay was cast over and 270 yards removed in the scow. At the outer end of the cut the material had to be loosened with explosives. Four spar buoys were placed to mark the new channel, which was used by the larger boats plying these waters.

An ice-house 10 by 10 by 8/10 feet high, and a storehouse, 10 by 12 by 8/10 feet high, were built at lake Demontigny, in connection with next season's dredging operations at this place.

The plant was moved to winter quarters at Amos.

Ultimately the improved channel at the outlet of lake Demontigny will be 60 feet in width to grade depth of 6 feet and approximately 2,500 feet long; the improved channel in the Harricanaw at the mouth of Landrienne river will be 100 feet in width to grade depth of 6 feet and some 460 feet in length.

Boulders and rock obstructing the small boat channel in the second and third rapids north of Amos were removed.

Work was performed October 12-22. Some 50 yards of rock and boulders were removed from the second and third rapids and below in swift water. Levels were taken at all rapids between Amos and the new saw-mill, located 9 miles north, and a section developed at the site of proposed dam. Outlay, \$443.63.

Expenditure during the fiscal year:—

Dredging and plant.. . . .	\$14,048.54
Improvements in rapids.. . . .	443.63
	<hr/>
	\$14,492.17

MURRAY BAY

Dredging

During the last season, the basin on the east side of the wharf was dredged to a depth of 15 feet below L.W.L., to allow the large barges to come alongside the wharf to take their cargoes.

This basin has a length of 250 feet alongside the wharf, back of the headblock, with a width of 72 feet at the head and about 100 feet at the entrance.

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The dredged area measured about 25,700 square feet and had a mean depth of cut of 3 feet.

The basin was dredged by the departmental dredge No. 110 from the 20th to 26th May, 1920.

The nature of the material excavated was sand, clay, and hard pan, and amounted to 2,855 cubic yards, place measurement.

NORTH TIMISKAMING

Tenders for the construction of a pilework wharf were received August 25 and rejected. The department decided to proceed with this work by day labour. Quotations were secured and materials ordered.

During, the winter, January 10-March 5, all piling was done (326 piles driven), double waling placed and bolted, all capping laid and temporary bracing was done. The structure, when completed during the summer, will extend out 244 feet 6 inches, with landing head 86 feet by 106 feet 4 inches and a combination freight shed and open shelter 92 feet by 20 feet.

Expenditure during the fiscal year, \$13,248.68.

NOTRE DAME DES SEPT DOULEURS

Isle Verte or Notre Dame des Sept Douleurs, in the county of Temiscouata, is an island of the St. Lawrence, situated opposite the parish of Isle Verte, on the south shore of the St. Lawrence.

On November 6, 1919, a contract was awarded for the construction of an extension to the eastern wharf, on the lower end of the island, at Notre Dame des Sept Douleurs.

The contract was let on the unit price basis, for an approximate amount of \$4,387.86, and the total sum paid to the contractors was \$4,377.80.

The dimensions of the addition are 81 feet 3 inches in length, by a width of 21 feet for the first 30 feet 3 inches, and 30 feet 10 inches wide for the remaining length, the height of the outer end being 13 feet 10 inches.

The work was satisfactorily completed, according to plan and specification, in the month of August, 1920, the work being an open-faced cribwork filled with stone.

Western Wharf

During the last fiscal year ended March 31, 1920, tenders were asked for the construction of an extension to the western wharf on upper extremity of the island.

The dimensions of the proposed addition were 80 feet in length and a width of 21 feet for the first 30 feet and 30 feet in width for the remaining length, the height at the outer end being 17 feet, including cap piece.

The construction to be open-faced cribwork filled with stone. Many tenders were submitted but none was accepted and the contract was not awarded.

New tenders will likely be asked for this spring.

PTE-AUX-TREMBLES

The parish of Pte-aux-Trembles is situated about 21 miles above Quebec, on the north shore of the St. Lawrence river, in the county of Portneuf.

During the present fiscal year, the most emergent repairs were made to the wharf, summarized as follows:—

Rebuilding a part of the crib of the approach; taking off and renewing a part of the sheathing, flooring, cross-ties and longitudinals on both the approach and the head-block where decayed or broken; repairs to combined storeroom and lighthouse, rellevelling the floor of the head-block on the southeast part; removing of corner straps

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and boiler plates from the wharf and replacing same after sheathing had been renewed; construction of a new movable landing slip, and placing same in its proper position; building and placing two side ladders; renewing part of cap timbers; the iron guard railing, east side was taken off and replaced in proper position and the mooring posts, hoisting machinery, combined store and lighthouse were painted with two coats of paint.

This work was done under contract, commenced on August 23 and completed on November 15, 1920, and the total expenditure for the above mentioned work is \$8,604.15.

POINTE PIZEAU (SILLERY)

Pointe Pizeau is situated in the parish of Sillery, county of Quebec, on the north shore of the River St. Lawrence, about 3 miles above Quebec.

The wharf which had been partly destroyed by the great storm of November 18, 1918, was repaired under contract, at a cost of \$13,120.30.

PORT ALFRED

Dredging

During the past fiscal year, dredging consisted in the completion to 27 feet on a distance of 410 feet of the two cuts close to the north side of the wharf which were dredged to 16 feet in 1917; four cuts were made farther off having an approximate area of 72,000 square feet, and some re-dredging was done close to the wharf, as filling in had taken place, to 29 feet below low water. In order to give another berth, at the outer end of the wharf, nine cuts 36 feet in width were dredged to 27 feet below low water.

Material removed during the season as 187,720 cubic yards of mostly soft clay, and the work was done by departmental dredge No. 110 between May 31 and October 25, 1920.

RIMOUSKI

Work done during the past fiscal year consisted in the continuation of the filling-up of the intervening space between the old and new construction with carted material of sand and gravel bought from farmers and delivered in place, and shale rock that was blasted in a quarry located near the wharf that was rented from the owner and operated by the department.

The space lying west of the old wharf was levelled over the whole area and may be considered as completed with the exception of the surfacing to be done when final settlement has taken place.

The northerly space lying north of the old wharf was filled up to a considerable extent and partly brought to a level with a flooring of cribwork construction.

Three hundred feet in length of the track foundation of the Canadian Northern Railway branch line on the wharf were repaired and put in good condition. All work was done by day labour.

RIVER ST. FRANCIS

Dredging

The River St. Francis rises in the counties of Compton, Beauce and Megantic.

During the last season, one cut 30 feet wide at the lower point of Ilets des Jones on a length of 2,000 feet was dredged to a depth of 8 feet below extreme low water level, to allow the free passage of boats and barges from the St. Lawrence to the channel in River St. Francis.

The area dredged is 6,666 square yards and had an average depth of cut of 5 feet.

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The work was effected by departmental dredge No. 121 attended by tug *Mina G* during the period extending from July 1 to September 15, 1920.

The material dredged was sand with traces of clay and the total dredging was 17,566 yards scow measurement, of which 2,770 was cast over.

This channel will be much improved if widened to 60 feet as proposed, during this season which widening would entail the excavation of another 14,700 cubic yards scow measurement of sand.

RIVER ST. MAURICE

Middle Channel

The Middle channel is one of the three branches of the St. Maurice river outlet, and is practically used for floating and booming logs only.

The works consisted in the dredging of a channel 60 feet wide, on a total length of 1,400 feet and to a depth of 4 to 6 feet below low water level. The quantity of material removed was 23,633 cubic yards, scow measurement, of sand with a small percentage of clay. The distance to dumping ground was $\frac{3}{4}$ of a mile, and the average depth of cut 7.6 feet.

Dredging was done by dredge *P.W.D. No. 123*; was commenced on April 28 and discontinued on May 29, 1920.

Eastern Channel

Dredging in the Eastern channel where refilling took place, consisted in the removing of a small refilling immediately below the sewer outlet of the Wayagamack Pulp and Paper Company.

The quantity of material removed was 1915.8 cubic yards of sand, clay, sawdust and refuse material of the Wayagamack Pulp and Paper Company.

The channel has a total length of 400 feet by 60 wide, and a depth of 12 feet below low water. The average depth of face was 2.1 feet, and the distance to dumping ground $\frac{3}{4}$ of a mile.

Work was done by dredge *P.W.D. No. 116*, was commenced on September 13, and discontinued on 15th of the same month.

STE. ANNE DE BEAUPRE

Ste. Anne de Beupre is situated in the county of Montmorency-Charlevoix, on the north shore of the river St. Lawrence, about 21 miles below Quebec.

This wharf, which had been partly destroyed by the great storm of November 18, 1918, was repaired under contract and the expenditure up to March 31, 1921, was \$28,339.65.

ST. FAMILLE, I.O.

St. Famille is situated on the north shore of the island of Orleans, in the county of Quebec, about 16 miles below Quebec.

This wharf, which was partly destroyed by the great storm of November 18, 1918, was repaired under contract and the total expenditure up to March 31, 1921, was \$18,802.20.

ST. FRANCOIS SUD

St. Francois Sud is situated on the south shore of the island of Orleans, in the county of Quebec, about 27 miles below Quebec.

This wharf, which was partly destroyed by the great storm of November 18, 1918, was repaired under contract and the expenditure up to March 31, 1921, was \$36,893.65.

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ST. JEAN, I.O.

St. Jean is situated on the south shore of the island of Orleans, in the county of Quebec, about 18 miles below Quebec.

This wharf was partly destroyed by the great storm of November 18, 1918. It was repaired during the last season, under contract, and the total expenditure up to March 31, 1921, was \$28,083.

ST. JOSEPH DE SOREL

St. Joseph de Sorel, a post village and parish in Richelieu county, on the south shore and on the Richelieu and St. Lawrence rivers.

In order to protect the shipyard and the harbour of Sorel, the Government built in 1890-91 two icebreakers on the south shore of the River St. Lawrence just at the meeting of the two rivers. A few years ago one of them, having been badly damaged by the ice, was rebuilt in concrete. This year, the other one being in a very dilapidated condition, in September last a contract was entered for the construction in reinforced concrete of a new icebreaker.

This new icebreaker is 25 feet 7 inches by 25 feet 7 inches at the base and 9 by 9 feet at top with two sides sloped 1 in 1 and other two sloped 1 in 12, standing 19 feet high above the ground. It is made of 2-foot thick reinforced concrete walls, perfectly filled with hand-placed stone. It is provided with a concrete foundation 3 and 4 feet wide, 2 feet thick, resting on a stone foundation 4 feet wide and 2 feet thick.

Total cost, \$2,800.

ST. LAURENT, I.O.

St. Laurent is situated on the south shore of the island of Orleans, in the county of Quebec, about 10 miles below Quebec.

The wharf, which had been partly destroyed by the great storm of November 18, 1918, was repaired under contract and the slip and hoisting apparatus had to be renewed.

Total expenditure up to March 31, 1921, \$20,679.53.

ST. MICHEL DE BELLECHASSE

St. Michel, in the county of Bellechasse, is situated on the south shore of the St. Lawrence, 15 miles below Quebec.

On July 20, 1919, a contract was entered into for the reconstruction of the superstructure of the wharf, which was carried away during a heavy storm in the fall of 1918.

About half of the work was performed when, during last winter, the ice damaged the part of the wharf which had not been repaired to such an extent that, owing to the great modification in the existing work, the department thought it expedient to cancel the contract, and on November 19 last an Order in Council was passed to that effect.

As the wharf in its present state is available to the public for only half its length, to accommodate the traffic, authority was granted to expend the sum of \$650 for the construction of a temporary landing about 100 feet in length, consisting of a flooring 12 feet wide, supported by stringers solidly secured to vertical posts placed every 12 feet.

This work was done during the month of June. In the month of November, in order to place in safety the old timber of the damaged wharf which had been carried on shore and was scattered on the beach, a further sum of \$90 was expended, making a total expenditure of \$740 on day labour during the fiscal year ended March 31, 1921.

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SOREL

High Level Wharf

In December, 1919, a contract was entered for reconstruction and repairs. The work was done during last summer and amounted to \$10,146.55.

The construction of a permanent well for an automatic gauge being requested by the Department of Marine and Fisheries, an extra to the present contract was authorized on the basis of actual cost plus 10 per cent to make the necessary excavation and build a 4 by 4-foot well in 3-inch plank and properly braced. The work was done in October last and amounted to \$554.31.

High Level Wharf and Stone Protection

The flooring on the pile construction of the downstream end of the high level wharf being in a dangerous condition, during last summer the whole flooring was renewed, together with the stringers and a great part of the beams. The stone protection from this pile structure to the entrance of the Lanctot basin was rip-rapped anew. This work was done by day labour at a cost of \$2,548.80.

Pontbriand Wharf

This wharf, bought by the Government in 1913, was a close-faced crib structure resting on piles, 250 feet long and 14 feet wide at top.

Being in a dilapidated condition and a menace to navigation, its demolition was requested as necessary. The whole cribwork, together with the stone filling, was removed and nearly all the piles were pulled out and placed in a safe yard on private property. The work was done by day labour, at a cost of \$941.45.

TROIS RIVIERES

Coal Wharf

A timber dock, an ice-breaker, a railway embankment and earth filling are located in the western section of the harbour opposite Wind Mill point. The timber dock is 640 feet long, and the ice-breaker, 115 feet long. The embankment extends from the back of the timber dock and ice-breaker, up to high water line, giving an area of about 600,000 square feet.

During the big storm of 1918, the eastern rip-rap and the embankment were considerably damaged, and repair works were absolutely urgent.

Repairs consisted in excavating the embankment back and alongside of cribs Nos. 2, 3 and 4, on a total length of 155 feet, by 36 feet wide at the bottom, on an average depth of 11 feet. The said excavation was refilled with four rows, one foot thick of facines mattresses mixed up with blue clay, and covered with ballast stone. The balance of the excavation was refilled with sand to the elevation of the top of the wharf.

The eastern rip-rap of the embankment was remodelled and realigned to its former position and shape. The whole of the stone of the rip-rap was removed and carefully replaced by hand.

During the progress of the works, a careful inspection of the face of the cribs was made by a diver. It has been found that the different cribs had not been sunken close together, and that an open joint of the width, varying between 24 inches and 6 inches had been left between each of them, this being probably the cause of the washout of the embankment.

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Under these circumstances, it was decided to close the joints Nos. 1-2-3-4 (joint No. 5 having been repaired in the previous years). Cement mixed with sand, put up in bags, was piled up by a diver at the exterior of the joints. At the back of those bags, concrete mixed up in the proportion of 1-2-4 was placed in the joints, on the whole width of the crib, in order that those joints be perfectly closed. When this work was completed, the outside sheathing in front of each joint was removed, and seven piles 50 feet long, 12 by 12 inches were driven close together. Those piles were sunk to an average depth of 11 feet, and secured to the top of the crib-work with 1 inch machine bolts, varying in length between $2\frac{1}{2}$ and $3\frac{1}{2}$ feet. In order that the above mentioned work be done, ballast stone placed above each joint had to be removed, and same was replaced when the pile-work was completed.

The embankment was also releveled to the elevation of the top of the wharf.

This work was commenced on August 29 and completed on December 31, 1920. The total expenditure for fiscal year 1920-21, was \$15,181.08.

VAUDREUIL

Dredging

The object of this dredging was to give access to Dominion wharf by ss. *Victoria*, drawing $8\frac{1}{2}$ feet when loaded.

The site of dredging done is in Vaudreuil bay, from deep water of Lake of Two Mountains to 1,500 feet from lower light of Vaudreuil range or 1,500 feet from wharf.

From June 16 to September 18, departmental dredge No. 123 worked here, and removed some 90,236 cubic yards scow measurement of soft clay and boulders.

Dimensions of dredging done are as follows: One cut, 9,446 feet long parallel with range of light by 50 feet wide at bottom; a supplementary cut on the downstream of the one above mentioned, 2,000 feet long, 35 feet wide from 10 foot-line or deep water of Lake of Two Mountains towards shore, parallel with range of light; a small cut made on the downstream side of range of lights, 600 feet long by 35 feet wide, the whole to a clear depth of 9 feet below extreme low water level or 9 feet on Ste. Anne de Bellevue lock.

ONTARIO

BELLE RIVER

From June 10 to 12 inclusive, 1920, a channel 5 feet deep at L.W.L., 25 feet wide and 1,100 long was dredged through the sand bar in Lake St. Clair opposite this point.

The work was done by the dredge *Peltier* of the Windsor Dredging Company, Limited. The quantity of materials removed was 2,869 cubic yards of sand which was overcast to the east of the channel and the expenditure was \$400 (lump sum).

BOWMANVILLE

Owing to action of winds and currents, a gradual shoaling takes place in the entrance to this harbour and between the piers and this shoaling is increased by the sediment brought down by the river especially during the spring freshet. To such an extent had this occurred that on the opening of navigation in 1920, a governing draught of 7.0 feet prevailed between the piers and in consequence coal vessels were unable to reach the coal sheds and the town of Bowmanville with a population of 3,500 inhabitants was left without fuel.

It was decided to undertake dredging operations in order to provide a channel of 14-foot draught below zero of gauge or elevation 245 above mean sea level New York.

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Commencing at a point one hundred feet northerly from the north side of the coal shed and at a distance of 20 feet from the westerly side of the east pier, a channel 75 feet in width was dredged extending lakeward for a distance of 400 feet. From this point the channel was reduced in width by 25 feet less, leaving 50 feet in width continuing between the piers to a point one hundred feet northerly from the outer end of the piers. From this point the channel was widened to the full width of 100 feet and was carried out to the 14-foot contour line. The total area comprised 96,875 square feet and the material consisted of sand, silt and some debris that was carried down by the spring freshet in the river.

The entire improvement was carried out by the C. S. Boone Dredging and Construction Company, whose contract price was 64 cents per yard, place measurement.

BRONTE

Bronte, in the County of Halton, is an important fishing station of Lake Ontario.

Repairs by day labour were commenced October 19 and were completed on November 22; the work consisting in the levelling up and reconstruction of the superstructure of the south pier. Commencing at the easterly end of pier and extending westerly a distance of 470 lineal feet, 2 to 3½ courses of face-timbers together with cross ties, decking, etc., were removed and new timbers and decking placed in position and secured in the structure. This pier varies from 15 feet to 20 feet in width over its length.

Timber and decking for this pier had already been purchased and was piled on the site at Bronte.

A small checkwater, 50 feet in length by 10 feet in width was constructed at shore end of pier from salvaged timber, to stop wash from lake in time of storm cutting behind pier through beach to river.

Expenditure for the fiscal year was \$2,011.15.

BURLINGTON CHANNEL

Burlington channel, in the county of Wentworth, is simply a dredged channel through a low lying piece of land, known as Burlington beach, connecting Lake Ontario with Burlington bay. Through this channel vessels are enabled to reach the wharves at the city of Hamilton.

(1) Authority was given February 12 to enter into an agreement with the Strauss Bascule Bridge Company for the preparation of plans and specifications in connection with Burlington Channel bridge and to pay the Strauss Company \$12,500 for these plans and specifications.

(2) Authority was given May 11, to expend the sum of \$5,800 for the maintenance and operation of the Burlington Channel bridge and to expend one-sixth of this amount.

(3) Authority was given in letter No. 2467 dated June 8, to expend the full amount of \$5,800 mentioned above for maintenance and operation of Burlington bridge.

(4) Authority was given July 8 to expend the sum of \$17,000 for the completion of the work under Contract No. 12292 with the Ottawa contractors for the reconstruction of a portion of the South pier at Burlington channel.

(5) Authority was given November 5 to expend the sum of approximately \$75,053.46 in connection with a contract for the removal of the old swing bridge and the construction of the substructure of a single leaf Strauss trunnion bascule bridge over the Burlington channel.

(6) Authority was given March 7 to expend the sum of \$200 in removing the old derelict ferry scow which is a menace to small boat navigation.

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(7) Authority was given March 14 to expend the sum of \$228,896 in connection with the construction of the superstructure of the bascule bridge at Burlington channel. The extra amount required for this work over and above that already authorized namely, \$152,000 to be provided by Parliament at its present session.

Work Accomplished

Plans and specifications were prepared by the Strauss Bridge Company, providing for a lift bridge, having a length over all of 202 feet, and with a width over all of 34 feet, comprised of a roadway 22 feet in width and two sidewalks each 6 feet in width.

Burlington Channel swing bridge was placed in commission on April 1 and closed for season on December 13.

A temporary crossing was constructed over Grand Trunk Railway bridge, to permit of the passage of pedestrian traffic across Burlington channel during the construction of the new lift bridge.

Expenditure, \$5,579.38.

Work under contract with the Ottawa contractors was continued on April 1 and this contract was completed and final estimate was given on January 6, 1921.

The construction work covered by this contract consisted in the reconstruction in timber of 200 feet of the south pier superstructure with a width of 20 feet, said renewal commencing at a point 300 feet measured easterly from westerly end of the south pier.

Expenditure, \$16,629.99.

A contract was awarded the Canadian Engineering and Contracting Company for the renewal of the old swing-bridge and the construction of the substructure of a single leaf Strauss Trunnion bascule bridge on November 30.

Work was commenced December 15 and up to the end of the fiscal year the following portions of contract work were accomplished:—

(1) Removal of superstructure of old swing-bridge.

(2) Excavation for rest pier, counterweight pier and part of main trunnion pier, totalling 417 cubic yards.

(3) Supplying and driving 26 round piles for rest pier and 36 round piles for counterweight pier, in all 2,136 lineal feet.

(4) Filling in of southern approach 2,923 cubic yards.

(5) Delivery of materials for balance of work.

Expenditure, \$17,908.19.

Operations for removal of derelict scow blocking small boat navigation, were carried on and this work was completed March 24.

This scow was located approximately 500 feet north of channel and 150 feet from shore.

Expenditure, \$150.

A contract was awarded the Hamilton Bridge Works Company for the sum of \$228,896 for the construction of the superstructure of the single leaf bascule bridge.

No expenditure has as yet been incurred in connection with this contract.

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Summary

To paid Strauss Company..	\$12,500.00
• Swing bridge maintenance..	5,579.38
Renewal south pier..	16,629.99
Lift bridge substructure..	17,908.19
Removal of scow..	150.00
Grand total..	<u>\$52,767.56</u>

COBOURG

A contract was awarded the York Construction Company (at unit prices) approximating \$13,171.20 on September 15, for the reconstruction of a portion of the superstructure of the checkwater, covering a length of one hundred and eighty-seven feet nine inches and with widths varying from 37 feet to 15 feet and to a depth of one foot below zero of gauge, also the construction of a new superstructure consisting of block and mass concrete over the above lengths and widths.

This reconstruction commences at point of junction of checkwater with east pier and extends westerly 91 feet 6 inches, thence southwesterly 96 feet 3 inches to junction with the work previously completed.

Operations were commenced September 13 and contract was completed and final estimate given January 5, 1921.

Expenditure for the fiscal year was \$13,564.30.

Dredging

Owing to the action of waves and currents in the vicinity of Cobourg, a bar forms almost annually at the entrance to the harbour and as the presence of this bar interferes with the car ferries making the port in stormy weather, dredging operations have to be resorted to frequently.

In addition to the shoaling at the entrance, it is necessary to keep dredged the section in the inner harbour where the car ferries turn to enter and lay up at the dock. Commencing at a point 550 feet southeasterly from the south end of the east pier, a bell mouth channel was dredged 210 feet wide at the south end and 100 feet in width at the north end extending northwesterly to opposite a point measured 50 feet south of south end of the east pier and at a distance of 75 feet measured westerly from same. From this point the 100 foot width of channel continued north for a further distance of 820 feet and the east boundary of the channel was located parallel to and at a distance of 75 feet from the line of the southerly portion of the east pier.

The whole of the above area was dredged over, the material removed consisting of gravel, sand, silt and clay. This excavation was carried on by the Frontenac Dredging Company under contract dated August 9, 1920, and the tender rate was 55 cents per cubic yard, scow measurement.

Work was commenced by dredge *St. Lawrence* on August 14 and dredging was completed on September 22, the amount of material removed scow measurement being 17,736.74 cubic yards. For this the contractors were paid \$9,755.21.

CONNAUGHT STATION

The proposed pilework wharf to be built at Connaught station, on the Frederick-house river, consists of an approach 174 feet long by 20 wide, a landing head 96 by 32 feet and a freight shed 16 by 24 feet constructed on a separate pilework substructure. A depth of 6 feet at L.W.L. is provided at landing face, and structure will be built to a height of 5 feet above this level.

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Materials were ordered in August, 1919, with a view to construction by day labour. Work had not been undertaken up to March 31, 1920, due to delay in delivery of material and unfavourable labour and ice conditions. Since no appropriation was provided for the execution of the work during the present fiscal year, the timber was repiled and the iron, etc., stored for proper protection until the work is proceeded with.

Expenditure during the fiscal year, \$1,345.56.

FORT WILLIAM

The harbour now consists of 13.02 miles of navigable channels varying in depth from 19.4 to 28.0 feet and in width from 175 to 600 feet excepting in the channels through the bridges and in turning basins. The total area is 811.5 acres which includes an area of 148.8 acres in the entrance channels in Thunder Bay. Harbour frontage available for dockage, exclusive of frontage in Thunder Bay, 22.45 miles of which the frontage already built up with wharves and retaining walls is 7.72 miles.

During the past fiscal year, the following works were executed:

The Mission River breakwater extension described in last year's report was completed, work of completion was commenced May 14 and finished November 6. The piles driven last year were cut off to a depth of 22 feet below low water level; the cribs, 10 in number, were completed, sunk in place, filled and rip-rapped on both sides to approximately 10.5 feet from L.W.L.; the concrete superstructure was finished October 13.

This breakwater has a length of 1,230 feet, a width of 27 feet at the top and a height of 7.5 feet above water level at zero of gauge of 601.86 M.S.L.

The expenditure for the fiscal year was \$238,326.23.

HAILEYBURY

During the month of June, a 52-inch Page fence with two 12-foot and one 3-foot gates was erected between roadway and dockyard property, and three rope-houses at large shipways were covered with tarred felt roofing.

Last April, the service dock was damaged by ice and nine piles were broken: in view of existing conditions as to public works on the lake, it was found unnecessary to restore this wharf to the former dimensions.

The damaged portion was partially demolished, October 2-November 5, when five broken piles were removed and the building of a new landing face was started by driving one corner pile and placing round timber waling at the east end; between March 14 and 18, the work was completed by removing the remainder of the broken piles and by placing four short fenders 10 by 10 by 5 feet. This work was done after part of the dredging plant such as bucket, dipper arm, spud shoes, chains, etc., had been removed from the dock and stored in the yard.

The departmental construction and dredging plant was accommodated here as in the past.

KAGAWONG

Kagawong is situated on the north shore of Manitoulin island, about 12 miles easterly from Gore bay.

A contract for the construction of a wharf and warehouse was entered into for, approximately, \$11,667.86 (unit prices). Owing to the difficulty in obtaining delivery of materials, the contractors were unable to commence until September 20, 1920. It was carried on and was completed on December 8, 1920.

The work was necessary owing to the complete decay of the old wharf, which was useless for the purpose of reconstruction. It consisted of a pile wharf 120 feet

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long by 16 feet wide, with an L headblock 36 feet by 30 feet, with a rock-filled roadway approach 84 feet long by 16 feet wide; also the construction of a warehouse 24 feet wide by 48 feet long on a pilework foundation.

The total expenditure was \$12,017.44.

KINCARDINE

Dredging

It was decided to undertake dredging operations in order to provide a clear channel of 14 feet below zero of gauge or elevation 580 above mean sea level New York.

Between the piers, a 50-foot channel 300 feet in length was excavated removing the shoal area which blocked entrance into the inner harbour. The dredging was commenced at a point opposite the east end of the freight shed and extended lakeward for a distance of 300 feet. No material was excavated closer than 25 feet from the north pier.

The material removed consisted of sand, river deposit and some stumps and debris that was carried down by the spring freshet in the river. The total quantity dredged scow measurement being 3,500 cubic yards.

The amount of material dredged below subgrade amounted to 143.4 cubic yards, place measurement. This dredging was carried out by the C. S. Boone Dredging and Construction Company, whose contract price was \$1 per cubic yard, scow measurement. They commenced work with the dredge *Kingsford* on July 5 and completed their contract on July 12, 1920.

KINGSTON

Dredging

To provide at temporary bridge site and in the inside channel a 14-foot draught for vessels passing in and out of the inner harbour, and to provide a 12-foot draught for vessels loading and unloading at Campbell's, Crawford's, and Swift's docks, an area was dredged at the temporary bridge 200 by 600 feet and 10,310 cubic yards removed, at Campbell's slip an area of 150 by 175 feet where 934 yards were removed; at Crawford's slip over an area of 125 by 100 feet where 354 yards were removed, and at Swift's slip over an area of 275 by 90 feet 1,238 yards were removed, all place measurement. The material was clay, silt and boulders; work was done September 28th to November 17th, by the Frontenac Dredging Company for 50 cents a yard. The dumping ground was two miles out in lake Ontario.

The area still to be dredged at the temporary bridge is 300 by 175 feet.

Expenditure for the fiscal year is \$6,418.

KINGSVILLE

Dredging

Between September 15 and October 9, 1920, departmental dredge *Q. & R No. 1* improved the entrance to the harbour and deepened the berths alongside the eastern pier for the accommodation of vessels using this port. The dredged channel is parallel with the range light (N. 11 degrees 0 minutes W. Ast.) and is 25-65 feet west thereof.

The dimensions of the dredging done are as follows:—

Entrance Channel.—Length of cuts, 1,035 and 200 feet; width at base, 40 feet; general depth 14 feet; minimum depth 13.3 feet.

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Berths at wharf.—Length of cuts, 390 and 50 feet; width at base, 75 and 40 feet; general depth, 12.5 feet, and minimum depth at inner end 11.1 feet.

The total quantity of sand and silt removed was 8,959 cubic yards, scow measurement, and the cost of this work was \$17,140.13.

Only part of the work laid out at this port was attended to owing to the lateness of the season and to the shortness of funds. The dredge was accordingly laid up at Kingsville with the idea of completing the necessary widening and deepening of the channel during the present year.

LITTLE CURRENT

The town of Little Current is situated on Manitoulin, on the narrow strait which connects the waters of Georgian bay with the north channel of Lake Huron.

A contract was entered into at unit prices (total amount approximately \$40,831.32) to perform the work and complete it by May 19, 1921.

The work will consist of a wharf 300 feet long by 16 feet wide on top with pile-work substructure and concrete superstructure; a warehouse building of concrete stucco, with concrete walls and concrete floor, 30 feet wide by 60 feet long; an office and waiting room building 22 feet wide by 32 feet long with extension roof all around, also of concrete stucco construction; and the filling and grading of the site in the rear of the wharf. The work is necessitated by reason of the destruction of the previous wharf and warehouse by fire in February, 1919. The work performed to date consists of the completion of the substructure of the wharf, along with anchorages and anchor rods, the placing in position thereon of all the concrete blocks forming the lower part of the superstructure and the completion of 70 per cent of the filling in the rear thereof.

The value of the work performed to date is \$22,295.59.

L'ORIGINAL

The public wharf, built in 1897-99, was repaired June 15-22 and August 10-September 6. During June (15-22) three new crossties 9 by 12 by 10 feet, two face-timbers, 9 by 12 by 17 feet, and two stringers, 10 by 10 by 16 feet were placed on wharf, damaged by ice-shove in spring. Some 5,000 feet board measure of 3-inch flooring was laid on low level landing and approach and minor repairs made to lower slip; one mooring hook was placed on high level landing.

On July 26th, fire of undetermined origin destroyed the landing-head above the water line, 80 lineal feet of pile-work approach, freight sheds and contents. In order to re-establish river traffic as soon as possible, reconstruction was proceeded with almost immediately. Between August 10 and September 6, debris was removed, some repairs made on cribwork of landing-head, piles cut off for a slip in the damaged portion of approach (seven bents) and pile-caps, 9 by 12 by 14.5 feet placed on same, using for that first part of the works some 7,000 feet board measure of material on hand. After a delay, works started again September 23rd, and were completed for this season October 25th. Wharf was reopened to traffic October 6th. Works carried out consist in completing the slip, 80 feet long by 16 feet wide, with the exception of handrailing, completing erection of cribwork of landing-head, including ice-breaker, placing 3 inch flooring on low level landing and 50 per cent of sheeting on ice-breaker. Pile-caps were also placed ready to receive flooring system of freight shed next season. The debris of the downstream pier was razed to low landing elevation. Provision was made for a temporary freight shed, which will be used, after completion of works next year, as a cattle shed. The whole of the work is of a permanent nature.

Expenditure during the fiscal year, \$4,345.11.

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OAKVILLE

Dredging

It was decided to undertake dredging operations in order to provide a clear channel of 14 feet draught below zero of gauge or elevation 245 above mean sea level New York.

Commencing at the 14-foot contour line in the lake approach, a bell-mouth channel varying from 150 feet in width at southerly end to 50 feet in width at the northerly end, was dredged over a length of 300 feet to opposite the south end of the east pier. From this point a channel 50 feet in width was dredged between the piers for a length of 600 feet to opposite the northerly end of the east pier. From this point a slight deflection easterly was made in the channel line and dredging was continued with a 50-foot width of channel a further distance of 600 feet to a point opposite King street.

The material removed consisted of sand, river deposit and debris that was carried down by the spring freshets in the river. The total quantity dredged, scow measurement, being 20,591 cubic yards, giving an expansion factor of 20.1 per cent.

This work was performed by the C. S. Boone Dredging and Construction Company whose contract price was 65½ cents, place measurement. They commenced work with the dredge *Meade* on July 23 and completed their contract on August 30, 1920, payment being made by the department for the removal of 16,603 cubic yards.

OWEN SOUND

Authority was given in connection with contract which was awarded September 27 at unit prices for the reconstruction of 739 lineal feet of the town wharf on the east side of the Sydenham river extending from the northerly end of the Government revetment wall to the property of the Canadian Pacific Railway, bounded by the northerly limit of 11th street east.

The work consists in the construction of sheet piling face wall and pile bent substructure, together with capping, stringers and block seat timbers and a concrete superstructure arched between bents with concrete decking.

Construction was commenced November 29 and up to the end of the fiscal year the following work has been accomplished:—

(1) Removal of all apparent obstructions to the carrying out of the work including the whole of the superstructure and the greater part of the substructure of the old work together with the removal of certain portions of the old close-piling in the rear that interfered with new work.

(2) The driving to within about 3 feet of final penetration of 42 round piles forming the rear members of the various bents.

Expenditure for the fiscal year was \$11,084.91.

PELEE ISLAND

Pelee island, Essex county, is situated at the west end of Lake Erie.

The work of repairs performed on the north pier was as follows:—

Close planking the spans and the shore approach to pier, the renewal of stringers, decking and face timber near the warehouse, and 37 cubic yards of gravel and 30 cubic yards of clay were placed in the road approach to the crib.

Operations were commenced on July 19 last and carried on at intervals until March 25.

Work performed on the west pier was as follows:—

A contract was entered into for the renewal and replacing of the warehouse and the reconstruction of 85 lineal feet of superstructure at the outer end, being exclusive

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of the outer end for a length of 50 feet. This work was performed between November 3 and December 21 last. 600 cubic yards of old stone filling were removed and replaced and 140 cubic yards of new filling put in.

Certain minor additional repairs to this pier were made between February 23 and March 12 last at a cost of \$190.46.

Expenditure for fiscal year 1920-21, was \$8,068.09.

PORT ARTHUR

The following work was carried out during the fiscal year ended March 31, 1921.

1. *Extension to the rubble mound breakwater at Bare Point.*—A contract dated July 26, 1919, for the construction of an extension, 1,600 feet in length, to the rubble mound breakwater at Bare point.

Actual work on this contract was commenced October 18, 1919, and continued throughout the winter. By March 31, 1920, 700 lineal feet of the fill had been brought to the water's edge approximately, and 69,309 tons of rock placed.

After a temporary suspension due to the spring breakup, work was resumed on May 5, 1920, by the scow method, which was continued until July 19, 89,627 tons of rock being deposited and the fill for the entire length being brought to approximately the water level; the use of scows, therefore, had to be discontinued.

A construction track was then laid from the quarry out over the original Bare Point breakwater and the work carried on by means of train fill from trestle, 101,407 tons of rock being placed in this manner up to January 22, 1921, when the breakwater was practically completed with the exception of the covering course of large stone. Work was therefore discontinued as it was deemed advisable to allow some months to elapse to enable the structure to settle and compact itself before the latter was placed.

Authority was given for providing a further length of 250 feet, at the same unit price.

Work on this extension was resumed March 21, 1921, and 10,117 tons of rock were deposited during the month.

This work should be completed during the coming season.

Total expenditure fiscal year ended March 31, 1921, \$297,194.44.

Dredging

As the last existing contract with W. E. Phin, for work in the harbour had expired at the end of the season of 1919 and as certain maintenance work in the shape of dredging slips, entrance channels, etc., was necessary, an entirely new contract dated July 2, 1920, was let to the Canadian Dredging Company. The authorized quantity was 151,000 cubic yards scow measurement class "B" material at a unit price of 28 cents. The work carried out under this contract during 1920-21 in detail, is as under:—

1. *Port Arthur Shipbuilding Company.*

(a) *Entrance Channel.*—Shoal areas on each side were dredged. Dimensions 60 by 650 and 60 by 800 feet. Depth dredged, 19 feet. Average depth of face, 5 feet. Governing depth throughout, 18 feet. Quantity, 16,000 c.y.p.m. Material sand and clay.

(b) *Fitting Out Slip.*—One cut was made along the face 30 by 500 feet. Depth dredged 19 feet. Average depth of face 4.2 feet. Governing depth throughout to shearlegs 18 feet. Quantity 2,333 c.y.p.m. Material sand, clay, gravel, hardpan and shale.

Unless a greater depth than 18 feet is required, no further dredging should be done for some years.

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2. *Main Harbour Centre.*

(a) Three cuts running east and west were taken from the undredged triangular section outside the harbour line immediately southeast from the Canadian Pacific Railway wharf. Dimensions, 90 by 315 feet. Depth dredged, 25 feet. Average depth of face, 5.9 feet. Quantity, 6,479 c.y.p.m.

(b) Two cuts running east and west were redredged over a shoal area immediately west of the light at the main entrance. Dimensions, 60 by 350 feet. Depth dredged, 25 feet. Average depth of face, 3.8 feet. Quantity, 3,200 c.y.p.m.

Material in both cases sand and clay. Governing depth throughout main harbour centre and south 19 feet.

3. *Main Entrance Channel.*

Four shoal areas 90 by 325; 60 by 800; 60 by 530 and 60 by 800 feet were redredged. Depth made 25 feet. Average depth of face over entire area 2.7 feet. Quantities 15,555 c.y.p.m. Material sand and clay and soft mud.

This entrance channel should now be adequate for several years to come.

4. *Canadian National Railway Elevator "B" Slip.*

(a) *Extension.*—Owing to the construction of a new concrete workhouse at this plant the existing slip was extended toward the shore to meet the new requirements. Dimensions 125 by 375 feet. Depth dredged 25 feet. Average depth of face 14 feet. Quantity 26,960 c.y.p.m. Material clay overlaid with a considerable depth of sand which ran in extensively and required the whole area to be dredged a second time.

(b) *Redredging Slip.*—The existing slip was redredged throughout to give a uniform depth of 25 feet. Dimensions, 200 by 800 feet. Average depth of face, 3.6 feet. Quantity, 23,460 c.y.p.m. Material clay.

The governing depth throughout this slip is now 23 feet, and this improvement should be good for three or four years.

5. *Thunder Bay Elevator Slip.*—

Certain areas were redredged. Dimensions, 120 by 700 feet. Depth dredged, 25 feet. Average depth of face, 3.4 feet. Quantity, 11,500 c.y.p.m. Material sand.

Governing depth throughout this slip is now 23 feet, and no further redredging should be required for four or five years.

6. *Joint Slip between Dominion Government elevator and the Davidson and Smith elevator.*

Three shoal areas were redredged. Dimensions, (a) 90 by 465; (b) 90 by 430; (c) 30 by 500 feet. Depth dredged, 25 feet. Average depth of face, (a) 4 feet; (b) 4.6 feet; (c) 1.4 feet. Material sand and clay.

The governing depth throughout this slip is now 22 feet which should be satisfactory for the next few years.

One foot for subgrade should be added to all depth dredged given above.

The depth dredged in each case is referred to the zero of the Public Works of Canada gauge—601.86 mean sea-level.

The governing depth in each case is referred to a mean summer level of 602.5.

One dipper dredge, *The Excelsior*, one tug, the *F. W. Grant*, and two steel dump scows, with a capacity of 454 and 451 cubic yards, were employed on the work.

Actual dredging operations commenced July 19 and were completed October 23, 1920. The biggest days work was 3,177 c.y.s.m.

Total expenditure for the fiscal year 1920-21 was \$42,705.84.

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PORT BURWELL

Dredging

Dredging was done in the outer entrance channel, in the channel between piers and in Otter creek by departmental dredge No. 117 from May 15 to June 1 last, and from August 18 to November 30 last, a total quantity of 131,072 cubic yards S.M. of sand, silt and clay being removed. The cost of this work for the calendar year 1920 was \$41,704.64. In addition, owing to the entrance channel having filled in to a considerable extent during certain storms late in December last, this dredge again commenced operations on March 21 and prior to the closing of the current year 8,557 cubic yards S.M. were removed. This makes the total quantity dredged in this harbour during the past fiscal year 139,633 cubic yards S.M. Class B. material.

The work performed consisted in dredging the outer harbour so as to leave a safe depth of 21 feet below L.W.L. and in the inner harbour of 18 feet below L.W.L. which is 570.80 feet above M.T.N.Y.

PORT COLBORNE

Operations were resumed on contract of June 22 and it was completed and final estimate given September 20. The work accomplished was as follows:—

(1) Starting at a point 324 feet westward from jog in the back of the breakwater where the 50 and 25 feet widths abut and going westward, a new concrete wall 668 feet in length and in addition a 14-foot return at east end and a 10-foot return at west end were completed. This work was commenced in 1919 and was unfinished at the end of the fiscal year. The above reconstruction is 11 feet in height with a 10 foot base and a width on top of three feet.

(2) The completion of decking behind the new wall varying in width from two to thirteen feet, making in all 5,464.5 square feet.

(3) Underpinning of the superstructure of headblock of the western breakwater at the southeast corner for 31 lineal feet with concrete in bags and timber facing.

(4) Temporary repairs to face wall in lieu of permanent repairs for a length of 74 feet, 24 feet and 25 feet commencing at a point about 171 feet east from jog in back of breakwater where the 50 and 25 foot widths abut.

(5) The completion of the reconstruction of 70 feet of the superstructure at the east end of the east breakwater.

(6) Repairing a new break in the surface of front slope of the east breakwater 6 by 9 feet at a point 130 feet east of headblock.

Expenditure for the fiscal year was \$12,626.35.

PORT HOPE

Dredging

Three sections were dredged over in this harbour of which sections "A" and "B" were in the west harbour and section "C" in the east harbour.

Section "A" commences at the northeast corner of the west harbour and extends southerly 200 feet and thence westerly 240 feet, the area containing 48,000 square feet which was dredged to solid rock. The excavation provided a general draught of 12.3 feet at zero level of lake.

Section "B" commences at a point measured 50 feet south from the northwest corner of the west harbour, thence from point of commencement east 75 feet, thence south 100 feet, thence west 40 feet, thence south 100 feet, thence west 35 feet to the edge of the wharf. This section contained 11,000 square feet and was dredged to solid rock providing a governing draught of 13.9 feet at zero level of lake.

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Section "C" in the east harbour commences at a point measured 170 feet north from angle in the dock face at the foot of Mill street. Thence from point of commencement west 34 feet, thence south parallel to dock face 160 feet, thence southeasterly 190 feet, thence east 34 feet, thence northwesterly 190 feet, thence northerly 160 feet to point of commencement. This section contained 11,900 square feet and was dredged to solid rock and provided a channel 34 feet in width with a governing draught of 10.6 feet at zero level of lake.

The material removed consisted of silt, sand and loose rock and the quantities dredged were as follows:—

Section "A"—Total place, 3,254.6 cubic yards.

Section "B"—Total place, 1,328.1 cubic yards.

Section "C"—Total place, 2,718.7 cubic yards.

A contract was awarded the Frontenac Dredging Company for the above work and the tender price was for Section "A," \$1.70 per cubic yard, place measurement and for Section "B" and "C" the tender price was 85 cents per cubic yard, place measurement.

Operations were commenced July 10, 1920, by dredge *Frontenac*, and the sections were completed and dredging finished August 10, 1921, the contractors being paid \$6,153.83.

PORT STANLEY

Dredging

Between June 11 and August 17 dredging was performed in the outer entrance, in the channel between the breakwaters and in the inner turning basin, by departmental dredge *No. 117*.

All work in the inner harbour was performed to a depth of 19 feet below L.W.L., while in the channel between the piers and in the inner turning basin the depth dredged was 18 feet below L.W.L., or zero of gauge which is 571.80 feet above M.T.N.Y.

Ninety-two thousand three hundred and sixteen cubic yards scow measure, sand, silt and mud were removed.

Expenditure for calendar year 1920 was \$28,740.29.

RONDEAU

Repairs were made to piers, construction of a sheetpile wall to the east of the east pier, reconstruction of superstructure of the west pier for a length of 227 feet 6 inches and repairs to the east pier.

Notification was given of the award of contract to Wm. Bermingham, Esq., for the construction of a sheetpile wall at his tender price of \$15,360, unit prices, and notification was given of the award of the contract to the Border Cities Construction Company for the reconstruction of west pier, at their tender price of \$16,119.37 unit prices.

Repairs to Piers

The following work was performed on the east pier between September 27 and October 30 last:—

Replacement of defective face-timbers, curbs, stringers and decking over a considerable area of the pier. A space between the submerged cribs which had washed out was also repaired.

Expenditure during fiscal year 1920-21 was \$1,691.97.

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Sheetpile Wall

A sheetpile wall 320 feet long is being constructed in front of the lightkeeper's dwelling between the eastern pier and groynes.

Expenditure during the fiscal year was \$4,282.20.

The time for the completion of the contract has been extended to June 30, 1921.

Reconstruction of Part of Superstructure of West Pier

This work is being undertaken as part of the work of renewal of the old timber west pier, which is in a very defective condition.

The work under contract extends 227 feet 6 inches southerly from the concrete corner at the junction of the Lake Erie Coal Company's wharf and the Public Works wharf.

Practically all the materials are delivered and the work is being advanced rapidly and is now 60 per cent finished.

The work consists of the removal of the timber superstructure of the present pier and the building of a concrete facewall along the entire part to be reconstructed, together with bearing piles under the toe of the wall and anchor rods holding the wall securely in position.

The work done is as follows:—

The old superstructure is removed; the bearing and anchor piles are driven; half of the anchor rods are in place; the concrete footing blocks are nearly completed and the reinforcing steel, lifting rings, etc., are nearly completed.

Expenditure during fiscal year 1920-21 was \$9,329.50.

Dredging

Authority was given to remove the shoals that had formed in the entrance channel and the Lake Erie Coal Company's slip.

The work was performed by D.P.W. No. 117 between June 2 and June 10, a total quantity of 10,126 cubic yards S.M. of sand, gravel and mud being removed, at a cost of \$0.339 per cubic yard. Total cost for the calendar year 1920-21, \$3,436.35.

Dredging was performed to a depth of 20 feet and 19 feet below L.W.L., which is zero of the gauge elevation 571.8 feet above M.T.N.Y.

Repairs to Lightkeeper's Dwelling

Repairs were made to the lightkeeper's dwelling. This work was performed for the Department of Marine at an estimated cost of \$1,600, and the work was completed at an expenditure of \$1,478.

SAULT STE. MARIE

Dredging

The object was to complete the cleaning up of the river bottom to the standard harbour grade of 21.5 feet below a datum level of 582.57 above mean sea-level (1893 adjustment). The cleaning of the river bottom of stones and boulders was undertaken in 1919, but completion of it was not possible owing to the approach of winter weather. Five spots consisting of three small areas of ledge rock and two of loose rock had to be left over for another season's work.

These five spots were located opposite the southeasterly corner of the New Ontario coal wharf, about 500 feet southeasterly from the Ferry wharf and three within 100 yards of the face of the Government wharf.

Their dimensions were not accurately obtained, but they ranged from about 4 feet square in the first-mentioned place to about 100 feet by 30 feet in the last.

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It was again found to be impracticable to fully complete the work laid out, as a shoal which lies some 300 feet south of the west end of the Government wharf, was found to consist of a fairly large area of ledge rock about 20 feet wide by about 50 feet long, instead of consisting of a small point of ledge and a considerable quantity of stones as previously expected. The plant engaged was not suitable for such an extent of rock drilling and blasting, therefore it was decided to remove only the higher spots to within 6 inches of the standard grade and leave its further removal to a future time, when a general deepening of the river channel takes place. This shoal is now reduced to an elevation of 561.5 feet above mean sea level which will give a clearance of nearly a foot to any boat loaded to the draft governed by the lower sill of the Canadian lock.

The material removed consisted generally of loose rock and boulders, but some points of ledge rock were blasted away from spots. The total quantity was 280 cubic yards scow measurement, and it was all deposited in the rear of the Sault Ste. Marie Coal and Wood Company's wharf, thus involving only a few hundred yards of towing.

For the performance of this work a contract with the Sault Ste. Marie Dredging and Construction Company, Limited, dated 15th of August, 1919, was extended. This contract stipulated payment at the rate of \$125 per day of ten hours full working time, but provided for deductions in case of lost time, due to stress of weather or breakages. The plant consisted of a derrick scow equipped with a hoisting engine and derrick equipment with grab buckets, rock tongs, chains and such like devices for lifting loose rock and boulders, and it also included a complete diver's equipment. The rate of hire included the wages of the crew, fuel and every other expense.

Work was commenced June 7 and was suspended on July 8, when the full authorized period of twenty days was covered, and for which the contractor was paid \$2,500. The cost of supervision amounting to \$481.63, making a total expenditure of \$2,981.63 for the work.

THAMES RIVER

Removal of snags and obstructions

The Thames river flows through the city of Chatham, and at a distance of 18½ miles below empties into lake St. Clair.

It is navigable throughout this distance for boats drawing 10 feet, and to Louisville, 7 miles above Chatham, for boats drawing 5 feet of water.

The work of removing snags started July 23 and finished September 20. Some work in clearing up dumps was done afterwards. Approximately 2,100 pieces were removed from the channel between Louisville and mouth of the river. Most of these were placed on the bank and removed from there free of cost by the farmers owning the land upon which the snags were placed. Farmers along the river bank were notified to cease placing brush and refuse in the river. Notices to this effect were also posted.

A snag-lifting plant was rented from George Ray, for which he was paid for plant, self and one man, \$12 per day. Departmental outfit was also used. At the close of the season the Government plant was laid up at the lighthouse at the mouth of the Thames river.

The cost of the work was \$1,376.63.

Dredging

Departmental dredge Q. and R. No. 1 was engaged in deepening and widening the entrance channel from August 3 to September 11, removing 31,364 cubic yards scow measurement, sand, silt and clay.

The channel was dredged to 14 feet deep below zero of water gauge, 50 feet wide and 3,100 feet long. Elevation of zero of gauge at the mouth of river is 573.9 feet above M.T.N.Y.

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TORONTO

The work being carried on by this department in conjunction with the Toronto Harbour Commission, comprises a general harbour improvement scheme, which includes shore protection for practically the city's whole waterfront, new dockage extending along the north side of the bay, reclamation of industrial areas and dredging where required.

On October 29, 1913, a contract was entered into between the Dominion Government and the Canadian Stewart Company, Limited, for the construction of sections of breakwater and retaining walls, together with dredging to a depth of 24 feet in a proposed ship channel and turning basin.

Under this contract the ship channel, marginal way walls, and a portion of the turning basin substructure were completed and the ship channel dredged to a depth of 24 feet below elevation 245. On the western section, the contractors constructed and placed in position the cribwork in sections A, B, C, R, and a portion of S. The total cost of this work was \$2,579,890.11, all under unit prices.

During 1918, owing to war conditions, work on this contract was suspended, and on March 10, 1919, a contract was awarded to Roger Miller & Sons, Limited, of Toronto, for the completion of the turning basin and sections A, B, C, R and S, of the western breakwater, on a cost plus basis. On July 11, 1919, this contract was extended to include the completion of all sections of the breakwater.

It was afterwards found expedient to cancel the original agreement and on August 12, 1920, a new contract was entered into with Roger Miller & Sons, Limited, on a cost plus basis. This contract provides for:—

1. The completion of turning basin and ventilation channel.
2. The completion of sections A, B, C, R and S, of the western breakwater.
3. The construction of sections D, E, F, G, H, I, J, and Q, of the breakwater.
4. The construction of the remaining sections of the breakwater if so authorized by further Order in Council.

Western Section

During the fiscal year 1920-21 the following work has been performed:—

Section A.—380 feet have been capped and 730 feet floored and the entire concrete superstructure placed, completing this section.

Sections B and C.—These sections were completed during 1919-20.

Section R.—The concrete superstructure has been placed over a length of 390 feet, completing this section.

Section S.—The concrete superstructure has been placed over the entire length of 460 feet, completing this section.

In addition to completing sections A, B, C, R, and S, the construction of cribs at Spadina dock to be used in other sections of the breakwater, has been carried on continuously from August, 1920. At the end of the fiscal year, twenty-six 100-foot cribs and twelve 30-foot cribs were completed and one hundred and ninety concrete blocks moulded and stored ready for use during the coming season.

Eastern Section

As in previous years, work in this section has been done in the dry. The water level being maintained at about elevation 240.5 by means of a dam across the ship channel.

3,981 cubic yards of concrete were poured during the season, completing the turning basin and circulating channel walls with the exception of two gaps of approximately 40 feet each which will be poured at a later date. These gaps are at the junctions of the turning basin and ship channel walls.

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Material aggregating 50,000 cubic yards has been dredged from the turning basin this season and deposited as backfill.

The following quantities have been placed during the period April 1, 1920, to March 31, 1921:

Dredging deposited as back-fill..	50,000 cubic yards
Mass concrete..	3,981 " "
Bolts, nuts and washers..	8,923 lbs.
Upper waling (B.C. fir)..	66,992 F.B.M.
Reinforcing steel..	103,739 lbs.

General

The gross value of the work performed and materials purchased during the fiscal year 1920-21, was \$1,021,934.84.

Island Breakwater

A contract was awarded May 26th for approximately \$201,840 (unit prices) for the construction of a rubble mound breakwater along the Island shore, 1,700 feet in length with a width on base of 60 feet. Construction was commenced August 18th and was closed down for the season November 27.

The work accomplished consisted in the partial construction of 450 lineal feet of this breakwater, 450 feet of mattresses 60 feet in width, were placed in position and the rubble stone substructure brought up to water level.

Expenditure for the fiscal year was \$36,428.23.

Eastern Channel

Active operations were resumed by the C. S. Boone Dredging and Construction Company, May 25, and their contract for the reconstruction of 400 lineal feet of superstructure of east pier, Eastern channel, was completed and final estimate was given July 10. The work accomplished in this fiscal year consisted in the completion of mass concrete work covering a length of 150 feet with a width of 21 feet and a depth of 2 feet.

Expenditure for the fiscal year was \$8,891.66.

Work was commenced November 1 and was completed December 3 in connection with the redecking of the outer 864 lineal feet of west pier, Eastern channel. New stringers were placed in position where required and a three inch decking was laid in position over full width of pier 28 feet.

Plans and specifications were prepared and a contract was awarded the C. S. Boone Dredging and Construction Company on October 12 for the reconstruction in concrete of 466 lineal feet of the superstructure of the east pier, Eastern channel. The amount of the contract (unit prices) is approximately \$68,678.50.

The contractors started bringing materials on the ground March 15, but up to the end of the fiscal year no reconstruction work had been carried on.

Western Channel

Work was commenced September 1st and was completed February 15 in connection with repairs to waling and life chains at Western channel. The life chains were taken off the piers and repaired where necessary and then replaced in position.

The broken waling was removed from the structure and holes in concrete walls were repaired.

A crack in the concrete decking of south pier at back of headblock was also repaired.

Expenditure for the fiscal year was \$2,029.16.

The work in connection with repairs to derrick scow consisted in raising this scow, which had sunk at anchorage during the winter and afterwards repairing boiler of derrick.

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Summary

Island breakwater.. . . .	\$36,428 23
East pier, Eastern channel (Contract 12,410).. . . .	8,891 66
Redecking 864 feet West pier, Eastern channel.. . . .	3,505 16
Repairs to waling, Western channel.. . . .	2,029 16
Repairs to derrick scow.. . . .	403 70
East pier, Eastern channel (contract).. . . .	2,999 75
Grand total.. . . .	<hr/> \$54,257 66

WHITBY

Dredging

It was decided to undertake dredging operations in order to provide a clear channel of 14 feet draught below zero of gauge or elevation 245 above mean sea-level New York. Commencing at the 14-foot contour line in the lake off the entrance channel to the harbour and at a distance of 350 feet measured southerly from the south end of the west pier, a channel 100 feet in width was dredged northerly to opposite the end of west pier. This channel was dredged parallel to the west pier line produced and the westerly boundary of the dredged area was distant 140 feet easterly from west pier line produced.

From opposite the south end of west pier the dredged channel was continued northerly, parallel to the west pier for a further distance of 550 feet but was reduced in width from 100 feet to 50 feet. The westerly side of this narrowed channel being located 165 feet measured easterly from the west pier.

In the inner harbour two sections were dredged over shoal areas:—

(1) Commencing at a point opposite the northerly end of the concrete work on the east harbour wall and at a distance of 20 feet measured westerly from the edge of the wall, a section 150 feet in length by 50 feet was dredged extending northwesterly in front of Mr. Blow's coal trestle.

(2) Commencing at a point distant 20 feet southerly from the west end of Mr. Watson's wharf, a section was dredged in front of the coal shed and elevators covering a length of 240 feet by an average width of 60 feet.

The entire improvement was carried out by the C. S. Boone Dredging and Construction Company whose contract price was 64½ cents per cubic yard, place measurement.

The company commenced work with the dredge *Meade* on September 3, and stopped work to proceed to Bowmanville on September 22, 1920, payment being made by the department for the removal of 7,138.6 cubic yards at a total cost of \$4,604.39.

MANITOBA

BIG GEORGE ISLAND

Dredging

The object of the work was to dredge a harbour of refuge at the Big George Island for the protection of passenger steamers, and fishing fleets operating in the northern waters of lake Winnipeg.

The work of the past season consisted in making one cut in the entrance channel 562 feet long, 45 feet wide with an average cut of 2.9 feet.

This work was a continuation of the work carried on in the years 1916 and 1917. A harbour 500 by 300 feet was proposed with an entrance channel 80 feet wide. The entrance channel is now completed for a draft of 8 feet and a section of harbour approximately 150 feet by 80 feet to the full depth required. A revision of the plans

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for this work has been made reducing the harbour to 325 feet by 250 feet with the expectation that the whole harbour will be completed during the season of 1921 instead of still requiring two years work.

The material removed was a very stiff hard pan containing many large boulders.

The quantity removed was 2,728 cubic yards place measure.

P. W. D. Dredge No. 204 was employed from August 18 to October 14.

DAUPHIN RIVER

This work consisted in building a crib wharf for the use of the Naval Service Department in connection with the fish hatchery.

The following work was carried out: Repairing earth embankment in approach, rebuilding old crib dock from the waterline up and the building of a new crib at an angle to the old wharf of an approximate length of 95 feet.

Expenditure for the fiscal year was \$7,923.87.

DELTA

Protection work was constructed to stop erosion of the bank of the channel dredged by the department some years ago, from Lake Manitoba inland to a large slough. It consists of a timber wall, round piles are driven at five-foot centres and to the round piles is attached a round timber waling which acted as a guide for driving sheet piling. Only 106 feet of sheet piling was driven during the past season and the sheet piling was attached to the round piling horizontally, giving a wall approximately five feet high; the total length of the work was 469 feet.

All of the sheet piling could not be driven, but what was driven gives protection until the work can be completed.

Expenditure for the fiscal year was \$3,543.67.

HECLA

This work consisted in building a pile trestle wharf and approach of a total length of 208 feet.

The outer 80 feet was built 20 feet wide and the remainder 12 feet wide; bents in the narrow section consisted of three round piles and in the wider section of five; piles were capped with 12 by 12 inch caps; stringers are 6 by 12 inches, and the flooring is of 3 inch plank.

The outer two bents are close-faced piling and are connected at the outside by close-faced round piling to form a bay which was filled with stone.

Expenditure for the fiscal year was \$3,735.96.

KILLARNEY

Work consisted in building a round and sheet pile dam backed with earth in the form of three sides of a rectangle; the fourth side is the embankment of the public road. The dam encloses a bridge built by the department through which the outlet from Killarney lake passes.

The dam contains a spillway with stop-logs to govern the level of the lake and a fishway to enable fish to reach the upper level. The remainder of the work consists in widening the bottom of the cut at the east end of the lake to enable the spring flood to pass off more readily.

Expenditure during the fiscal year was \$1,143.59.

LOCKPORT

Dredging

The object of this work was to remove river silt gathered in the north entrance to the lock at St. Andrews dam in the Red river.

One cut was made 405 feet long by 40 feet wide, with an average cut of 3.7 feet.

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The amount of material removed was 2,253 cubic yards scow measurement consisting of river silt.

The cost of the work was \$2,190.18 or a cost per cubic yard of 97.21 cents.

P.W.D. dredge No. 205 was employed from June 3 to June 11.

RED RIVER

Works at the mouth of the Red river protects the channel from the river out into Lake Winnipeg, and consists of two parallel walls 300 feet apart and built of round and sheet piling. Considerable damage occurs each year from storms and ice and necessitates annual repairs.

During the past summer, material was purchased with the intention of executing repairs after the formation of the ice in the winter, but in the fall, additional portions of the work were carried away and insufficient material was available to cover the old and additional repairs required and no work was undertaken.

A barge load of stone from Winnipeg was caught at the freezing of the river and in procuring its safety and unloading it, and the purchase of material for repairs cost \$8,642.96.

Dredging

The object of the work was the maintaining of the channel from the mouth of the Red River into Lake Winnipeg.

The work consisted of one cut 2,843 feet long, 130 feet wide with an average cut of 3.9 feet.

The quantity of material removed was 62,824 cubic yards place measure consisting of river silt and clay.

The cost of the work was \$7,980.10, or a cost per cubic yard of 14.82.

P.W.D. dredge No. 201 was employed from June 3 to September 3.

Sugar Island

The object of this work was to remove a middle ground which forms on the downstream side of Sugar island. This middle ground has been the cause of ice-jams which have caused severe floods in the town of Selkirk.

The work consisted of one cut 2,330 feet long, 150 feet wide with an average cut of 4.9 feet.

The quantity of material removed was 62,890 cubic yards place measure consisting of river silt and clay.

The cost of the work was \$8,601.94 or a cost per cubic yard of 13.67 cents.

P.W.D. No. 201 was employed from September 4 to October 28.

ST. ANDREWS

Repairing road and grading bank

The bank of the Red river in front of the departmental property at St. Andrews lock and dam has given considerable trouble; it was built up to a definite slope at the time of construction of the dam but gave way, carrying with it about one-half the public highway and presenting an opportunity for possibly a fatal accident.

During the past fiscal year, a timber wall of round piles and plank was constructed at the crest of the slope, the bank was then graded and the road replaced. At the bottom of the slope, an earth embankment was built to take care of the horizontal thrust of the earth.

Expenditure for the fiscal year was \$4,627.15.

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SELKIRK

Work consisted in replacing the southerly extremity of the wharf with a solid crib filled with stone and protected by a steel plate, and in strengthening sheet piling in other sections of the wharf.

Ice carried by the spring flood destroyed the exposed and upstream end of the wharf requiring its entire replacement. In the old sections of the wharf, the sheet piling in the face had come loose and required strengthening.

Extensive repairs are required as sections of the wharf are old and badly deteriorated.

Expenditure for the fiscal year was \$2,910.44.

THE PAS

During the fiscal year, 1920, a contract was let for the construction of a pile trestle wharf faced with sheet piling to be built for the sum of \$7,511.15.

The wharf has a frontage of 200 feet on the river parallel with the shore; then 100 feet at an angle of 45 degrees, thence at right angles to the wharf about 40 feet.

As soon as the flood in the Saskatchewan river had subsided, the work was proceeded with and completed at a cost of \$9,406.18.

Dredging

The object of this work was to dredge an approach to and a berth beside the departmental wharf.

The work consisted of one cut 2,257 feet long, 25 feet wide with an average cut of 9.2 feet.

This cut is the first of four cuts to be made to give a channel 100 feet wide.

The material removed amounted to 17,400 cubic yards scow measure consisting of hard pan and boulders.

The cost of the work was \$14,108.16 giving a cost per cubic yard of \$1.08 cents.

P.W.D. dredge No. 208 was employed from June 4 to October 2.

WINNIPEG

Dredging

The object of this work was to dredge berths beside the wharf in the city of Winnipeg.

The dimensions of the work were as follows:—

Brown, Rutherford... .. 434 by 40 by 5.6 feet.

Lake Winnipeg Shipping Company.... 118 by 40 by 5.6 feet.

River Avenue... .. 1,128 by 40 by 5.6 feet.

The quantity of material removed amounted to 14,065 cubic yards scow measure consisting of mud and clay.

The cost of the work was \$8,380.03, or a cost per cubic yard of 59.58 cents.

P.W.D. dredge No. 205 was employed from July 22 to September 23.

WINNIPEG BEACH

Dredging

The object of this work was to provide an approach to and berth beside the Canadian Pacific Railway Company's wharf.

The total length of cut was 972 by 40 feet wide with an average cut of 6 feet.

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The quantity of material removed was 8,689 cubic yards scow measurement, consisting of stiff clay.

The cost of the work was \$4,158.31, or a cost per cubic yard of 47.86 cents.

P.W.D. dredge No. 205 was employed from June 12 to July 22.

WINNIPEGOSIS

Dredging

The object of this work was to maintain the channel in the Mossy river and from the mouth of this river out into Lake Winnipegosis.

The total length of cut was 2,170 feet by 26 feet wide with an average cut of 2.3 feet.

The quantity removed was 8,585 cubic yards, scow measure, consisting of clay and river silt.

P.W.D. dredge No. 210 was employed from June 4 to September 13.

BRITISH COLUMBIA

CAMPBELL RIVER

Campbell River is a settlement on the east coast of Vancouver island, about 170 miles from Victoria.

Extensive repairs were required to the wharf, consisting of the renewal of the fender piles and additional creosoted brace and bearing piles and renewal of a portion of the superstructure. The approach 517 by 16 feet was reconstructed, including four trusses to allow the passage of driftwood with spans 52 feet centre to centre of piers, which are of creosoted timbers and rock filled. A new float 39½ by 18 feet was provided and moored with six creosoted mooring piles and the gangway 32¾ by 4 feet was repaired, also the adjustable slip. Log cribbing was built at the shore end of the approach.

The contract for the work was let to Mr. W. Greenlees, contractor, Vancouver, B.C., and was on an unit basis, amounting to approximately \$20,991.89. Extras were subsequently authorized amounting to \$1,120. Work was commenced in October, 1920, and was completed during March, 1921, the total amount expended was \$22,794.14.

CHEMAINUS

Dredging

The small town of Chemainus is on the east coast of Vancouver island, 52 miles north of Victoria by Esquimalt and Nanaimo railway.

Silting up having taken place fronting the loading wharf, which is used by ocean-going vessels loading for the export trade, the Department was requested to provide additional depth and an area approximately 370 feet long by 50 wide was dredged to a minimum depth of 30 feet at L.W.O.S.T. and an average depth of 32 feet at L.W.O.S.T. The nature of material consisted of sand, clay and silt. The work was performed by departmental dredge *Ajax*, in the interval February 4-February 17, 1921. The dredge removed 3,666 cubic yards, scow measurement, of material from the area fronting the loading wharf.

The dredge worked in addition two days before leaving at the foot of the log slip, removing 2,711 cubic yards, scow measurement of sand, silt and mill refuse.

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CHURCHHOUSE

A float and approach was built during the fiscal year 1913-14. Owing to heavy freight, etc., passing over it, and the destructive work of teredos, the structure had to be replaced by a new one.

The new float and approach was built by day labour October 27 to November 8 last. This is larger and of heavier construction than the old one, and should prove to be more durable.

Float, 36 by 50 feet; approach, 350 by 6 feet, and anchorage is by boom-stick stiff legs, cable, etc.

Expenditure for fiscal year is \$2,398.31.

COLUMBIA RIVER

Below Burton

During the high water flow of the summer of 1920, approximately 750 feet of mattress protection below Burton was damaged, having slipped off the bank down on the comparatively level bed of the river; apparently it had torn away from the mooring cables through undermining and weight of rock, and it remained at the base of the slope forming a protection against further undermining.

Two other pieces of mattress immediately above and below the slipped portion had also slightly moved, and to prevent the possible loss of these at the next high water repairs were made to the damaged portions during low water, and to March 31, new mattresses were built aggregating 30,800 square feet at a cost of \$6,891.47.

Above Arrowhead

Work comprised the removal of approximately 25 snags from the river channel between Arrowhead and 16 mile, and the clearing of trees, stumps and debris from off the wing dam at Arrowhead.

Narrows

That portion of the Columbia river between the Upper and Lower Arrow lakes is known as the Narrows, and is about 20 miles in length. During the season 1920-21, the departmental dredge No. 311 was employed, completing the navigable channel from opposite Cottonwood point, Columbia River narrows, westerly through a heavy sand and gravel bar to the head of the Lower Arrow lake; in deepening the navigable channel at Two Beacon bar; in cleaning out and deepening the newly-dredged channel at Cottonwood point; and in making a new cut across the point southwest from the Cottonwood Point channel.

Two Beacon Bar

The navigable channel of the Columbia river, at Two Beacon Bar crossing, had been shoaled by the deposit of fine silt and sand to an extent that steamers navigating it frequently touched the channel bottom at the low water stage of the river.

To deepen and straighten this crossing departmental dredge No. 311 was towed to Two Beacon bar September 22, 1920. Dredging began October 21st and was completed December 3. During this period, a channel 2,900 feet long and 70 feet wide was dredged to an average depth of 7 feet at low water. The material, amounting to 25,775 cubic yards of sand, silt and clay, was all overcast and 2,350 cubic yards of this amount was handled the second time.

Cottonwood Point

Due to the impossibility of maintaining permanently the old channel at the lower end of the Columbia River narrows in a navigable condition, it was deemed advisable to create an entirely new and distinct channel from opposite Cottonwood point, through a heavy sand and gravel bar, to the head of the Lower Arrow lake.

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Dredge No. 311 was placed in commission and operations commenced in November, 1919, dredging continuing from that date until operations were discontinued in April, 1920.

The channel established by dredge No. 311 was 850 feet in length and of an average width of 125 feet, giving a minimum depth of 8 feet at low water. This channel was in excellent condition when dredging was resumed in the fall of 1920.

On December 6, 1920, dredge No. 311 commenced dredging to remove material deposited during the high water season and operations in and at the head of this channel were continued during two periods, December 6, 1920, to January 28, 1921, and February 7 to March 26, 1921. During this time, 35,800 cubic yards of material, sand, gravel and some rocks, were moved, 4,050 cubic yards of which were overcast the second time, and 6,345 cubic yards of which were overcast, above and parallel to Cottonwood dam. The total yardage handled on this work during the fiscal year 1920-21 was 45,695, at a cost of \$10,100.88.

Breaks in the mattrassing have been repaired and when Cottonwood dam is brought to above the low water level, there should be no further serious silting effect in the new channel, which can be considered a permanent improvement.

Shoal Point

South and west from the mouth of the new channel at Cottonwood point, the shoal point extending westerly from the lower end of large gravel bar, had been considerably increased in extent by the deposit of material washed from the large dumps which were left on either side of the channel in the spring of 1920. The encroachment of this shoal toward the west shore narrowed the steamboat channel to such an extent as to make navigation very difficult with any appreciable wind.

Dredge No. 311 commenced dredging on the point of this shoal January 29 and between then and February 5, 1921, removed 6,830 cubic yards of material, 2,830 yards of which were overcast twice. A cut 360 feet long by 140 feet wide was made, giving a minimum depth of 7 feet of water in the channel at low water. Cost of work \$970.90.

COTTONWOOD DAM, BURTON

To assist in training the water of the Columbia river through the new channel dredged opposite Cottonwood point, and to prevent much flow through the old channel at low water stage it was considered advisable to construct a low water dam across the old channel from Cottonwood point to the bar through which the new channel has been established. This dam will insure sufficient water in the new channel for navigation during the low water season and will prevent a dividing of the water into two channels which would cause heavy material in transit down the river to be deposited at and near the point of separation with a resultant silting up of both channels; it will also serve the purposes of forming a basin of comparatively still water in the old channel below the dam, which will serve as a settling basin in which the material carried down the river and over the dam will deposit, thus blocking the old channel permanently, and assisting in the maintenance of the new channel as well as preventing this material from being carried down and deposited below the junction of the old and new channels.

Authority to proceed with the construction of a rock and brush dam was received and the work was completed on April 30, 1920.

The dam as constructed is 430 feet long, composed of a mat of brush fascines, fourteen to twenty feet in length, laid longitudinally with the stream, and connected by No. 9 galvanized wire.

This mat is held in position on the river bed by 420 cubic yards of heavy rock. The quantity of brush used amounted to 700 bundles, and the total cost of the work was \$3,639.07.

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Three hundred feet of dam had been built during the fiscal year 1919-20 at a cost of \$2,815.41, and the balance, one hundred and thirty-feet, was constructed during the fiscal year 1920-21, at a cost of \$823.46.

After construction was completed, settlement took place, and authority was given to expend the balance of the appropriation in raising the crest of the dam to above the low water level.

Dredge 311, during her operations cleaning and widening the new channel at Cottonwood point, overcast 6,345 cubic yards of gravel, from the channel and deposited it upstream from and parallel to the dam. This material during the coming summer will be washed into the hole above the dam and what is carried over the dam will settle in the old channel behind it, thus aiding in the silting up of the old channel, and reinforcing the dam.

FRASER RIVER

Removal of snags and obstructions in upper navigable channel of Lower Fraser River

The object of this work is to patrol the Fraser river during the freshet and remove snags and trees that are brought down by the flood and lodge on the bars, forming jams. In all, 548 snags and 47 large and small log-jams were removed; this work was started on June 1, and completed on August 7, at a cost of \$2,535.78.

This is a continuation of the work which was started in 1919-20, and it is proposed to resume work again this season. The Chilliwack Municipal Council have done some work each winter during the low water period, in cutting up and burning the log jams and snags in the river. The two operations by the Municipal Council and Dominion Government have had the effect of clearing the river of snags and reducing the danger of large log jams forming and changing the channel of the river, thereby lessening the damage done to the banks by erosion.

North Arm

The Bucklin Lumber Company applied for some dredging in their log pond, in front of their mill at New Westminster, on the north arm of the Fraser river, and the dredge *King Edward* commenced work November 1, and completed it November 12, 1920, 11,985 cubic yards of sand and silt were removed from the log pond and channel leading to it.

The area dredged over was 54,500 square feet, and the average depth of cut was 6.19 feet, and the average depth made was 9.44 feet at low tide, and the total amount of material removed was 13,865 cubic yards, place measurement, as found by survey.

The whole of the area as originally laid out was not dredged over, as the Bucklin Lumber Company were satisfied when the dredging was completed, and they were charged \$3,000 for ten days work of the dredge at \$300 a day which has been paid.

Celtic Cannery

The British Columbia Packers' Association applied to the department for some dredging in front of the Celtic Cannery, to 5 feet at low tide, to enable fishing boats to get to the cannery at all stages of the tide, and the dredge *King Edward* started June 14, 1920, and completed this work June 25.

13,870 cubic yards place measurement were removed, the average length of the cut was 700 feet by 107 feet, and average depth was 5 feet.

North Arm Channel

The object of this dredging is to complete a channel with 10 feet at low tide in the North Arm of the Fraser river from the Gulf of Georgia to New West-

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minster to assist navigation on the North Arm, which consists principally in towing logs up the river to the mills at New Westminster, and those situated on the North Arm.

From Eburne to the mouth of the North Arm the channel was dredged by the Pacific Construction Company under contract, and the *King Edward* commenced work on Cut No. 1 during the last fiscal year.

The total length of channel dredged in Cuts Nos. 1, 2, 3, was 13,230 feet, including 1,600 feet which was re-dredged on account of silting. These cuts are 150 feet wide, and a total of 406,090 cubic yards, place measurement, of sand and silt was removed.

Cut No. 1 is completed with the exception of a small portion at the upper end, which, together with about three-quarters of Cut No. 2 was left to be done during the freshet, as the river is very narrow there and it was dangerous to work when the logs were being towed up the river. Cut No. 3 was started, and will be completed about the time the freshet starts. The work on the North Arm will probably be completed this year.

Eburne

The work performed this fiscal year consisted in a cut 4,520 feet long, 150 wide to 10 feet at low tide, the object being to give a channel 10 feet at low tide from the Gulf of Georgia to Eburne, which is now completed. The material removed was sand and silt, and was deposited on the jetty on the south side of the channel. The work was done by the Pacific Construction Company, under their contract let in the fiscal year 1919-20, to dredge a channel from Eburne to the 300 foot channel dredged through the Sandheads in 1916, 940,777 cubic yards were removed in the fiscal year 1919-20. On March 20, 1920, a further 200,000 yards was authorized at the same rate per cubic yard, viz., 15½ cents, and in all 207,830 cubic yards, place measurement, was removed, at a cost of \$32,213.65.

The work done during the fiscal year was started on April 9, and completed on May 17, 1920.

North Arm Lumber Company

The North Arm Lumber Company applied for and agreed to pay for the dredging of their log pond in front of the mill on the North Arm, at the foot of Ontario street, to 5 feet at low tide.

The cut was 145 feet long, by 100 wide, the average depth of cut being 6½ feet, and the amount removed 3,490 cubic yards, place measurement.

This work was done on September 9 and 10, 1920.

North Arm Entrance

The object of this work was to deepen the entrance to the mouth of the North Arm of the Fraser river to ten feet at low tide. The cut was made about 1,200 feet long, and 300 wide. This portion of the channel had shoaled up to 5 feet at low tide; it was originally dredged in 1916 to 10 feet at low tide.

It was found that the channel had silted up at the outer end of the jetty, which was built in 1916, and the dredging that was done this year extended about 400 feet further into the Gulf of Georgia than the original channel. This shows that the Sandheads there are advancing, but the conditions there are different from the mouth of the main channel where the depth immediately beyond the channel increases very quickly.

The survey after the work was completed shows that the quantity removed was 33,333 cubic yards, place measurement, which was sand, silt and clay.

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Ladner

This work was asked for by the Ladner Board of Trade to enable freight boats and the British Columbia Government ferry to land at the wharves at all stages of the tide. 10 feet at low tide was asked for in the channel, with 15 feet at low tide in front of the Brackman-Ker wharves.

The dredge *King Edward* commenced work January 25, and work was completed February 23, 1921. The cut was 2,100 feet long, 150 feet wide and average depth of 4½ feet. The amount of sand and silt removed was 52,500 cubic yards, ascertained by survey.

Sandheads

The object of this work is to maintain at least 26 feet of water, with a 12 foot tide, through the Sandheads and the new channel, or Woodward's cut, a distance of about 6½ miles; dredging was done at various places by the departmental dredge *Fruhling*, over a distance of about 15,000 feet.

Location	Quantity Cubic yards
New Channel.. . . .	306,024
Buoys 15-17.. . . .	137,964
" 9-11.. . . .	54,355
" 9	39,944
" 7- 9.. . . .	46,528
" 5- 7.. . . .	177,470
" 3- 5.. . . .	25,344
" 1- 3.. . . .	74,634
Steveston Channel.. . . .	2,009
Total.. . . .	864,272 hopper msmt.

The material removed was sand and silt. The departmental dredge *Fruhling* was engaged all the year on this work, with the exception of the period between November 16 and December 3, 1920, when the dredge was engaged in deepening the entrance to the North Arm of the Fraser river.

Removal of Submerged Dam (Below Steveston)

The object of this work is to remove the submerged dam in the Main Channel of the Fraser river, about 1½ miles below Steveston, situated in the centre of the channel between Buoys Nos. 16 and 18.

The dredge *Ajax* commenced work on March 30, and only two days work was done in this fiscal year. A cut 80 feet long and 70 wide was made to 20 feet at low tide, the average depth of cut was 3.85 feet, and 800 cubic yards, place measurement, were removed.

This work was not completed at the end of the fiscal year, as the dredge only worked two days; but the work is being continued during the present fiscal year. The dam is 3,525 feet long, and in all there is about 77,400 cubic yards of rock, brush and sand, to be removed.

Removal of Wing Dam

The object of this work was to remove the outer 400 feet of the old wing dam, at the upper end of the new channel just above Steveston, to a depth of 18 feet at low tide.

The length of the cut was 400 feet, width 40, and average depth of cut 5 feet. The material removed was old brush mattresses, rock and sand, and 2,963 cubic yards were found to have been removed when a survey was made after the work was completed.

The work was started April 27, and was completed April 30, 1920.

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GRAHAM'S LANDING

Graham's Landing is situated on the Columbia river, between the Upper and Lower Arrow lakes.

On December 15, 1920, a contract was entered into for the construction of a floating wharf, 40 by 80 feet, with a floating approach 192 feet long, the approach to rest on a pile trestle 176 by 16 feet together with a sheer or fending boom 450 feet long, and two pieces of mattrassing 60 by 170 and 60 by 160 feet respectively, a shed 12 by 16 feet, also to be built on the main float. The contract price for this work was \$13,832.

The work was proceeded with during the low water season, 1920-21, and on March 31, the main float approach, approach-trestle, matrass, and 50 per cent of the sheer boom had been completed. The gross cost of the work to that date was \$12,964.25.

HOLLYBURN

The work of constructing a ramp and dredging was performed under contract dated November 2, 1920. Total amount of contract was \$6,195.59, to which was added \$37.50 as extras for 25 cubic yards of filling at the inner end of the approach.

The completed ramp, built on pile bents, is 150 feet long, and 24 feet wide. Slip area dredged alongside ramp is 120 feet long, and 50 feet wide, some 3,257 cubic yards of clay, gravel, etc., being removed. Repairs to the existing breakwater and a new and strengthened sea end to it was included in the contract.

Expenditure for the fiscal year is \$6,353.84.

HURST ISLAND

A float was built by day labour, in the period March 21 to 31, 1921, and is 24 by 30 feet and anchored in position with boom sticks and chains fastened to eyebolts, which were let into rocks on each side of a small bay on Hurst Island.

Expenditure for the fiscal year is \$798.48.

JERICHO BEACH (AIR STATION)

A floating landing, 26 by 40 feet, with a floating approach thereto, 218 by 6 feet, was built by day labour. Work was started August 13, and finally completed October 8 last.

In addition to the above, there were six works carried out under agreement by different contractors. These are detailed as follows:—

(1) Work of filling in the site of the station with sand pumped from English Bay was performed by the Pacific Construction Company, at a rate of 35 cents per cubic yard. The total yardage deposited was 16,557, and cost \$5,749.15. Work was started June 25, and completed July 3, 1920.

(2) The construction of a concrete platform, 300 by 75 feet, was done by Messrs. Ambrose and Aiken, for the lump sum of \$4,950, to which were added extras for \$683.10, total of \$5,633.10. This work was put in hand July 5, and completed July 31, 1920.

(3) The work of constructing a plank roadway through the station grounds to Imperial street was performed by Wm. Greenless, for the lump sum of \$4,285. The roadway, 795 feet long by 10 feet wide was built in the period July 12th to August 4, 1920.

(4) A landing slipway, leading to 4 feet below L.W. level, was built for the use of planes, 210 by 20 feet, of creosoted timber, by Wm. Greenless, for the lump sum of \$5,878.58. Work was put in hand July 14, and completed August 4, 1920.

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(5) On September 1, work was started on the construction of a 70 by 20-foot office and garage. Messrs. Sloan and Harrison performed the work for a lump sum of \$5,000, plus \$49.50 for extras, or a total of \$5,049.50. Building was completed November 16, 1920.

(6) Between September 7 and October 12 last, a water service pipe, etc., was laid from the service main at Imperial street to the station building, a distance of some 1,000 feet. This work was done by Messrs. Weeks & Company, for the lump sum of \$2,669.52.

Groynes were built at either end of the station grounds; both groynes were of the single bulkhead timber type, that to the east of the grounds being 125 feet in length, and that to the west, 185 feet. Wm. Greenlees built the groynes for the lump sum of \$1,100, paid for by the Air Board, completing the work between March 3, and 26, 1921.

KUSKANOOK

Kuskanook, Kootenay district, is the eastern Kootenay Lake terminus of the trans-Canada highway and transfer facilities were required to handle the volume of expected traffic through this place.

On August 16, 1920, a contract was entered into for the construction of a 40 by 80-foot floating wharf and a 16 by 320-foot floating approach thereto at Kuskanook. Contract price, \$7,950. On March 31, 1921, the main float was completed and towed to the future location, and material, except one carload of lumber, was on hand for the completion of the work. Gross amount of progress estimates to that date, \$6,912.20.

Prior to the award of this contract the approach was graded at a cost of \$132.13.

LYALL HARBOUR AND MORESBY ISLAND

Lyall harbour is situated on Saturna island, in the Gulf islands, 35 miles north-east of Victoria. The wharves at both these places were recently taken over from the Provincial Government and both were in poor condition, entire reconstruction being required in both cases.

Works of reconstruction were commenced in December, 1920, and satisfactorily completed during January, 1921. The amounts expended were: Lyall harbour, \$4,998.51; Moresby island, \$4,523.91; making a total expenditure for the above works of \$9,522.42, including inspection, \$264.60.

The new wharf at Lyall harbour is 60 by 30 feet with approach 70 by 16 feet widened at the rear of the wharf, freight shed 12 by 14 feet, slip 19 by 9 feet. The existing float and gangway were secured at the end of the wharf, creosoted piling was used throughout with the exception of the fender piles and horizontal brace log, while the various brace timbers below H.W.L. were treated with Piper's Anti-Teredo Composition.

In the renewal of the wharf at Moresby island the old wharf and approach were removed and a new wharf 30 by 60 feet with approach 131 by 14 feet widened at the rear of the wharf were constructed, with slip 18½ by 9 feet. The old freight-shed was repaired and replaced. Creosoted piles were used in the wharf-head and approach to L.W.L. thence to the shore untreated piles were used. It was found possible to embody a portion of the material from the old wharf in this work.

Temporary repairs to the slip at the old Lyall harbour wharf were carried out by local labour at a cost of \$8 prior to its removal.

MAYNE ISLAND

Mayne island is situated on Active pass.

The repairs to this wharf, which was recently taken over from the British Columbia Government, were undertaken by the Fraser River Pile Driving Company.

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New Westminster, B.C., under unit price contract. The work consisted of dismantling a portion of the rear of the wharf-head 46 by 40½ feet and renewal of seventeen creosoted bearing piles, ten creosoted brace piles, twenty-four fir fender piles, one fir five-pile corner dolphin and minor renewals to the superstructure in the remaining portion of the wharf-head. Repairs to the approach consisted of two creosoted and eleven fir bearing piles, together with sway bracings. A new float and gangway 24 by 14 feet and 30 by 3½ feet respectively were constructed and moored in position with four creosoted mooring piles. New planks to a width of 8 feet were laid on the old ones along the wharf approach.

The above work was completed during October and November, 1920, at a cost of \$4,471.62.

NAAS RIVER

On October 10, 1920, a party started work on further improving the upper reaches of the Naas between mileages 39.5 and 42.5, computing the miles from Kincolith at the mouth of the river; work was stopped on January 28, 1921, and the party was discharged.

During the winter's operations, 2,329 cubic yards of rock was blasted off jutting points of the south side of the river at the canyon to reduce eddies and back currents, and some 50 cubic yards was blasted off in the centre of the channel at the upper end of the canyon; 59 trees along the banks were felled and cut up to prevent them finding their way into the river; snags and several log jams were blown out above Hells Gate, mileage 42, and the materials driven down clear of the canyon. It was proposed to clear further rocks from Hells Gate but the river had, during the freshet of 1920, cleared a new and deep channel through a sandbar to the south. Expenditure during the fiscal year was \$9,380.71.

NANAIMO

Dredging

Nanaimo, with a population of 10,000, is on the east coast of Vancouver island.

Representations were made to the Department for the removal of a small rock shoal lying opposite the centre of the Canadian Western Fuel Company's loading wharf, and the *Lobnitz Rock Breaker No. 1* was put into commission for its removal. The work involved the removal of 690 cubic yards, place measurement, of sandstone rock. The rock breaker worked from June 17 to July 17, 1920, reporting 571 cubic yards broken on the small rock area and 122 cubic yards broken on Nicol rock, where work was done when tidal conditions were unfavourable on the former area, making a total of 693 cubic yards.

The departmental dredge *Ajax* was sent to remove the broken rock and worked from July 21-29, 1921, removing 469 cubic yards, scow measurement, of sandstone, 369 cubic yards being removed from the small rock area and 100 cubic yards from Nicol rock, a minimum depth of 29 feet at low water being given, on the former area.

NARAMATA

The contract for the construction of a new wharf was awarded November 3, 1919, to be 48 by 182 feet with a warehouse 20 by 100 feet, was completed April 16, 1920, at a cost of \$8,133.17.

OKANAGAN RIVER

Penticton

For the construction of a control dam on the river at the foot of Okanagan lake, Penticton, work was continued from last fiscal year during the period from April 1 to October 31, 1920.

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The control dam consists of a main portion across the river 220 feet long made up of a timber apron and rock-filled cribs on piling; the openings between cribs are closed by stop-logs, and there are two sheet-piled wing walls 60 and 65 feet long respectively.

During the fiscal year, the cribs and piers were raised to their full height above the foundation, additional sheet piling was driven in the upstream face, the east wing was completed and rock and gravel were dumped into the river bed above the dam.

PORT ALBERNI

Port Alberni is situated at the head of the Alberni canal, an inlet of the Pacific ocean.

Work was carried out by day labour, and was commenced early in March, 1920, the amount expended to March 31 being \$207.54. The completed work consists of floats having a total length of 412 feet, 6 feet in width paralleling the float constructed by the city at the end of Bird street, and having a waterway 100 feet wide in between.

An expenditure of \$1,993.40 was made during the present fiscal year, and the total expenditure being \$2,300.94.

POWELL RIVER

The public wharf was enlarged from 46 by 70 feet, to a length of 340 feet, with greatest width of 60 feet, and least width of 40 feet, a portion of the old approach forming a part of the new wharf head.

The work was performed under contract by the Fraser River Pile Driving Company, during the period May 5 to June 21, 1920.

The whole structure rests on, or abuts, the public breakwater, and is supported on creosoted pile bents.

In addition to the above, some minor work was carried out on the wharf at a later date. Several bearing posts having been knocked out by drifting logs, etc., a boom of logs (400 lineal feet) was placed around the wharf and secured thereto with boom chains. This work was performed by day labour in the period March 6 to 9, at a cost of \$353.09.

Expenditure for the fiscal year is \$10,192.90.

Dredging

The object of this work was to give a depth of 22 feet at low tide along the face of the wharf at Powell river. The cut was 356 feet long, average width of 80, and average depth of cut 11.6 feet, giving 22 feet of water at low tide.

The work was started by the departmental dredge *Ajax* May 5, and completed on May 25, 1920, and 12,326 cubic yards, place measurement, of clay, hardpan, and boulders were removed and dumped about half a mile out to sea in deep water.

PRINCE RUPERT

Quarantine Station

The pile bent foot-bridge connecting the small island on which the hospital is situated with the station proper was repaired by removing the hand railing and decking and driving two creosoted bearing piles under each of 54 bents of the bridge, and bracing each bent with creosoted sway bracing. The sound untreated braces removed from the bents were used to replace broken or rotten plank.

Work was done by day labour between August 11 and September 16, 1920, and the expenditure was \$4,499.37.

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Protection Work

Protecting the terraced lawns about the hospital from wave action at high tides was carried out by day labour; trenches were dug on either side of the old revetment walls to get longitudinal planks well below the normal ground surface; 3 by 12-inch planking was placed horizontally throughout 800 lineal feet of the wall on both sides of the supporting piles and posts, and the intervening space filled with sand and shingle. Work was done between October 12 and 20, 1920, and the cost was \$588.68.

Wharf

Repairs to the wharf, Digby island, consisted in the construction of a creosoted lumber stairway 44 feet long, from decking level to extreme low water level; the driving of three creosoted bearing piles under the wharf, and the supplying and placing of longitudinal creosoted logs under the fender piles along the 500-foot face of the wharf.

Work was done by day labour between September 17 and October 11, 1920, and the expenditure was \$2,545.52.

PRINCESS CREEK

Princess creek, Kootenay district, approximately three miles north from Ainsworth, is the logical terminal and ore milling point for numerous mines operating in the vicinity.

On September 27, 1920, a contract was entered into for the construction of a 40 by 80-foot floating wharf and a 16 by 208-foot floating approach thereto, at Princess creek. Contract price \$7,980. This work was completed on February 16, 1921.

PROCTER

Procter, Kootenay District, is situated on the West arm of Kootenay lake, about 19 miles east from Nelson.

On October 22, 1920, a contract was entered into with Messrs. Cogle & Leake for the construction of a 40 by 80-foot floating wharf and a 16 by 240-foot floating approach thereto. Contract price \$7,940. Construction commenced immediately and work was completed January 8, 1921. In addition, a 12 by 16-foot waiting shed was built by the same firm for the sum of \$200.

SHOAL PASSAGE

Dredging

The object of this work was to deepen Shoal passage, which is the western entrance to Howe sound.

The dredge *Ajax* started work November 1, 1920, and completed it January 29, 1921. The cut made was 785 feet long, 300 wide, to 15 feet at low tide; the average depth of the cut was 4.38 feet, and the material removed was gravel, clay and boulders. The dredge returns, scow measurement, show that 39,910 cubic yards of material was removed.

SIDNEY

Dredging

Sidney is a small town at the northeast end of the Saanich peninsula, about 18 miles from Victoria.

Authorization was granted to provide a channel to the loading wharf and the departmental dredge *Ajax* was sent for this purpose. The area dredged gives an

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approach channel 110 feet wide leading to a basin of irregular shape approximately 140 by 120 feet, which was dredged to give a depth of 10 feet at low water, with the exception of a small portion fronting the drag-saw float where the required depth could not be obtained owing to the contracted area in which the dredge had to work. 9,658 cubic yards, scow measurement, of sand, clay, boulders and mill refuse were removed, including 1,245 cubic yards castover. The work was one of some difficulty owing to the contracted nature of the area to be dredged and the depth to which the dredging was done, namely 10 feet below low water, the minimum working depth of the *Ajax* being 14 feet, assistance of the tides was thus required and the work had to be regulated accordingly.

SOUTH GABRIOLA ISLAND

Gabriola island is situated in the Gulf of Georgia, opposite to Nanaimo.

The tender of Mr. D. O. Shook, Vancouver, amounting to approximately \$3,152.08, was accepted for the construction of a wharf at the site of the former Provincial Government wharf, in order to allow the C.P.R.S.S. *Island Princess* to call at Gabriola Island.

The work was commenced early in March and on the 31st March, 1921, about 60 per cent of the work was completed, the amount expended to that date being \$2,029.59, including inspector's wages, etc. This wharf was completed about the middle of April, 1921, and will measure 60 by 40 feet with an approach 55 by 16 feet, a shed 16 by 20 feet, a float 24 by 12 feet, a gangway 30 by 4 feet and landing 12 by 6 feet.

STEWART

A new wharf, springing from the public highway between Stewart and Hyder, Alaska, was built to replace the old wharf at this point which had a pile bent approach over a mile in length, which the silting action of Bear river made it necessary to still further extend to deep water or build a new wharf on a new site. The new wharf is 100 by 50 feet with an approach thereto 200 by 20 feet and supported on creosoted piling; was built by contract at unit prices for the materials used in the structure, and the amount paid the contractor was \$28,843.30.

Work was started June 11 and completed August 27, 1920.

Old Wharf

Under agreement, two 6-pile dolphins were driven in line with the face of the old wharf for the lump sum of \$2,065.

Work was done between April 27 and 30, 1920.

STIKINE RIVER

Improvements were made to the navigable channel between the international boundary of British Columbia and Alaska, and the settlement of Telegraph creek, a distance of some 120 miles. Tops of outcropping rocks and reefs along the channel were blasted off, lining cables were supplied and fixed at two of the riffles most difficult to navigate and a large number of stumps, trees and snags were blasted out of the river.

Work was done during the two low water periods of April 1 to May 24 and September 1 to 30, 1920, and the expenditure was \$9,069.99.

THETIS ISLAND

Thetis island is a farming settlement in the Gulf of Georgia, 50 miles from Victoria.

This wharf was recently taken over from the British Columbia Government and had to be entirely reconstructed, the dimensions of the new wharf being 90 by 40 feet

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and approach 264 by 16 feet widened at the rear of the wharf. Creosoted piles were used in the wharf-head and approach to L.W.L. with the exception of the fender piles. Owing to the absence of penetration for piling in the approach, concrete footings were necessary. Landing steps for launches were provided at the back of the wharf. The contract was awarded to the Vancouver Pile Driving and Contracting Company, Vancouver, B.C., and was on unit price basis amounting to approximately \$9,136.91, and construction was commenced October 29 and completed December 6, 1920. The total amount expended was \$9,366.94.

VANCOUVER

The Vancouver Harbour Commissioners applied for the use of the departmental dredge *King Edward* to perform some piling at the shore end of the new Ballantyne pier, and authority was granted to do this work. The Harbour Commissioners paying for the dredge and plant at the rate of \$340 per working day, and a cheque was received for \$17,255 for 50½ days' work; during this time, 70,000 cubic yards of sand and gravel was pumped into the fill.

The work was started November 17, 1920, and was completed January 17, 1921.

VICTORIA

After negotiations extending over many years it was recently decided to replace the old swing bridge used by the Esquimalt and Nanaimo Railway crossing Victoria harbour, by a new and modern bridge having a single leaf bascule with plate girder approach spans for both rail and highway purposes having a 30-foot roadway, both steam and street railway tracks, and 8-foot sidewalk.

A clear channel at the bascule opening 120 feet in width is to be given with a clearance of 29 feet above low water mark.

In order to improve the approach to the new bascule opening of the above bridge from the south, authorization was received for the removal of rock from Discovery rock which is at the southwesterly side of the bridge site and also the further removal of rock from Hospital rock to afford additional space for Canadian Pacific Railway vessels when backing and turning near this point when leaving the harbour. The estimated quantities of material to be removed are as follows:—

Discovery Rock.—Estimated rock (gneiss), 2,980 cubic yards, place measurement.
Estimated earth, 963 cubic yards, place measurement.

Hospital Rock.—Estimated rock (gneiss), 1,274 cubic yards, place measurement.

The departmental drill plant was put in commission and drilling operations commenced at the northerly end of Discovery rock, February 16, 1921, but on 17th the drill platform was partially wrecked and submerged by a boom of logs colliding with same. This together with additional repairs delayed the work.

The work accomplished from the inception of the work to the end of the fiscal year was as follows:—

Surface of rock drilled over, 1,472 square feet.

Estimated quantity blasted, 78 cubic yards.

Number of holes drilled, 83.

Number of feet drilled, 734 feet.

Hours on duty, 460.

Hours actual drilling, 257.

As a small proportion only of the work had been accomplished to March 31, full and final particulars of same will be contained in the annual report of dredging operations 1921-22.

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WILLIAM HEAD

Quarantine Station

The William Head Quarantine Station is situated in the Juan de Fuca strait, 10 miles from Victoria, where ocean-going vessels report before proceeding to Victoria and Vancouver.

Coal Wharf.—The coal wharf is used for the storage of coal and as a landing for the D.G.S. *Madge*, taking supplies to the quarantine station. These repairs consisted of renewal of all the fenders with creosoted piles and the reconstruction of a portion of the approach 158 by 8 feet and general repairs to the superstructure.

A unit price contract was awarded to Mr. R. Moncrieff, Victoria, who completed the above work in July, 1920, at a cost of \$5,894.12.

Main Wharf Dolphin.—Six fir brace piles were renewed in this dolphin, which is near and in line with the front face of the main wharf. The work was executed at a cost of \$300 and completed in June, 1920.

Coal and Main Wharves.—A further expenditure was necessary for completing the repairs to the coal wharf by the addition of six creosoted piles and patching, where necessary, the existing copper sheathed piles in the main wharf with Muntz metal. The work was executed during June and July, 1920, at a cost of \$223.65 and \$204 respectively.

Repairs to Old Water Main from the Quarantine Lake.—Under authority from the chief architect an expenditure of \$3,000 was authorized for repairing, for emergency purposes, the 4-inch water supply main from the Quarantine lake to the Quarantine Station, William Head.

The above work was commenced November 8, 1920, and completed February 12, 1921. The above main consists partly of 4-inch cast iron and partly of 4-inch wood-stave pipes. The former being in fair condition, the repairs were confined to the old wood-stave pipes, the whole of which were uncovered and examined and numerous repairs made thereon.

The following work was also done:—

Four hundred and fifty feet of wood stave pipe renewed, 1 new 4-inch gate valve point established and gate valve erected, 1 new blow-off point established, 3 new gate valves for blow-off erected, 3 old gate valves repaired and replaced, 1 new air valve point established, 7 new air valves erected, 1 old air valve repaired and replaced and 7 wooden chambers with padlocks built. All trestles and wood work thoroughly painted. Intake chambers well scoured and cleaned three times during construction.

At the completion of the work the line was tested with the following results:—

Pressure at filter house, 85 pounds; pressure at Quarantine Station office, 80 pounds; pressure at power-house, 70 pounds.

It was found that when the station was supplied from the Quarantine lake through the filter that an ample flow of water could be maintained at the top storey of the first class building when several taps were opened. A fair stream was also obtained from one of the hydrants at a low pressure.

The total cost of the above work was \$3,016.01 and was carried out entirely by returned men who did good work.

Repairs to the sluice gate will be necessary at the low summer level of the lake and a 4-inch blow-off could with advantage be installed immediately below the intake chamber in place of the existing 2-inch valve as it is found that the water at the intake chamber gets foul and very dirty in a short time so that these chambers should be cleaned periodically and the 4-inch blow-off above referred to will expedite the emptying of the chamber.

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Dredging.—Certain vessels having reported that they touched bottom when berthing at low tide, and additional depth fronting the Coal wharf was required in order to provide turning facilities for the D.G.S. *Madge* which is used for conveying supplies, etc., used by the Quarantine Station authorities.

A contract was awarded to the Pacific Construction Company, Vancouver, involving the removal of the following material: Main wharf, 28,100 cubic yards; Coal wharf, 1,700 cubic yards; total approximately 29,800 cubic yards of sand, clay and boulders at the rate of 48 cents per cubic yard, place measurement.

The above work was carried out by means of a hydraulic dredge working on three 8-hour shifts between July 12 and July 19, 1920. Payment which was made on a place measurement basis from soundings taken before and after the dredging was as follows:—

Main wharf, 28,100 cubic yards at 48c.	\$12,091.20
Coal wharf, 1,700 cubic yards at 48c.	783.84
	<hr/>
	\$12,875.04

A basin 465 by 200 feet dredged to 35 feet at low water has been provided fronting the main wharf, the material consisting of sand, clay, gravel and occasional boulders and an area 85 by 150 feet was dredged to 20 feet at low water fronting the Coal wharf, the material here consisting of sand, clay and gravel.

DREDGING OPERATIONS

Contract Dredging and Dredging by Day Labour, 1920-21

Argyle Sound, N.S.—

C. E. W. Dodwell, district engineer. Day labour.

Class B. Sand, gravel, mud and boulders.

Total expenditure, \$500.

Work commenced September 20, 1920; completed October 19, 1920.

Object of work: To provide a cut 8 to 10 feet wide and 2 to 3 feet deep through a bar which obstructs the shorter access to Argyle Sound public wharf.

Channel 600 by 7 feet to 10 by 2 feet to 3 feet deep.

Belle River, Ont.—

Under agreement with Windsor Dredging Co. Dredge *Reaume*.

Quantity removed: 2,860 cubic yards, place measurement, at \$100 lump sum.

Class B.

Total expenditure, \$400.

Work commenced June 10, 1920; completed June 12, 1920.

Object of work: To make a cut in Lake St. Clair at Belle river, giving a depth of 5 feet L.W.L.

Bowmanville, Ont.—

Under contract No. 12881, with C. S. Boone Dredging and Construction Co., Limited. Dredge *Meade*.

Quantity removed: 22,151.1 cubic yards, place measurement, at 64 cents per cubic yard. Class B. Sand and clay.

Amount passed for payment, \$14,819.26; inspection \$225; total expenditure, \$15,044.26.

Work commenced September 28, 1920; completed November 20, 1920.

Object of work: To provide a depth of 14 feet by a width of 50 feet between the piers, widening out to 75 feet at the point where the vessels discharge.

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Chatham, N.B.—

Under agreement with Miramichi Dredging Co. Dredge *Peter England*.

Quantity removed: 649.2 cubic yards, place measurement, at \$1 per cubic yard.

Class B. Ballast and mud.

Total expenditure, \$649.20.

Work commenced June 8, 1920; completed June 19, 1920.

Object of work: To dredge slips at Chatham and Ferryville for ferry.

Cobourg, Ont.—

Under contract No. 12868 with Frontenac Dredging Co., Limited. Dredge *St. Lawrence*.

Quantity removed: 17,736.74 cubic yards, scow measurement, at 55 cents per cubic yard. Class B. Sand.

Amount passed for payment, \$9,755.21; inspection, \$202; total expenditure, \$9,957.21.

Work commenced August 14, 1920; completed September 22, 1920.

Object of work: Dredging where required in the channel entrance and in the inner harbour to depths of 18 and 20 feet.

Echourie, Que.—

J. T. Bertrand, district engineer. Day labour.

Quantity removed: 240 cubic yards, place measurement. Boulders.

Total expenditure, \$297.25.

Work commenced August 16, 1920; completed October 30, 1920.

Object of work: Removal of boulders from the sheltered water between the rock ledge and the shoal at Echourie, Que.

Fourchu, N.S.—

Under agreement with Atlantic Dredging Co. Dredge *Pepperell*.

Quantity removed: 3,402 cubic yards, place measurement, at 45 cents per cubic yard. Class B.

Total expenditure, \$1,530.90.

Work commenced June 11, 1921; completed June 17, 1921.

Object of work: Removal of material in overcasting a channel 35 feet wide, 5 feet deep, for a channel across the bar which separates the basin from the main channel.

Lower Fraser River, B.C.—

C. C. Worsfold, district engineer. Day labour.

Total expenditure, \$2,536.78.

Object of work: Clearing snags from upper navigable portion of Lower Fraser river.

Fraser River, North Arm—

Under contract No. 12403 (Extension) with Pacific Construction Co., Limited. Dredge *Portland*.

Quantity removed: 207,830 cubic yards, place measurement, at 15½ cents per cubic yard. Class B. Sand.

Amount passed for payment, \$32,487.38; inspection, \$1,316.34; total expenditure, \$33,803.72.

Work commenced April 9, 1920; completed May 17, 1920.

Object of work: Dredging of channel in North Arm, Fraser River, B.C., 10 feet deep, 150 feet wide, below Eburne.

Iberville, Que.—

J. T. Girard, district engineer. Day labour.

Total expenditure, \$272.

Work commenced August 13, 1920; completed August 31, 1920.

Object of work: To remove sunken scow in Richelieu river near Iberville, Que.

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Jersey Cove, Que.—

J. T. Bertrand, district engineer. Day labour.

Total expenditure, \$388.89.

Work commenced September 2, 1920; completed September 15, 1920.

Object of work: To repair platform and remove stone ballast which had scattered and obstructed the landing.

Kincardine, Ont.—

Under agreement with C. S. Boone Dredging and Construction Company, dredge *Kingsford*.

Quantity removed: 3,500 cubic yards, scow measurement, at \$1 per cubic yard.

Class B. Sand and clay.

Amount passed for payment, \$3,500; inspection, \$32; total expenditure, \$3,532.

Work commenced July 5, 1920; completed July 12, 1920.

Object of work: Removal of a shoal area about 140 feet long in the channel between the piers.

Kingston, Ont.—

Under contract No. 12868 with Frontenac Dredging Company, Limited, dredge *St. Lawrence*.

Quantity removed: 10,000 cubic yards; place measurement at 50 cents per cubic yard. Class B. Silt, mud, stones and clay.

Amount passed for payment, \$5,000; inspection, \$622.26; total expenditure, \$5,622.26.

Work commenced September 28, 1920; suspended for season November 17, 1920.

Object of work: Cleaning up slips along harbour front, and removal of material from basin above La Salle highway bridge on site of old Cataraqui bridge.

Kouchibouguac, N.B.—

Geoffrey Stead, district engineer. Day labour.

Quantity removed: 1,577.5 cubic yards, scow measurement. Class B. Mud, sand and gravel.

Total expenditure, \$880.47.

Work commenced June 2, 1920; completed June 23, 1920.

Object of work: The removal of material to a depth of 6 feet at low water from three shoal areas in channel.

Monetville, Ont.—

R. de B. Corriveau, district engineer. Day labour.

Total expenditure, \$82.05.

Work commenced, July 30, 1920; completed, July 30, 1920.

Object of work: Removing obstructions from channel leading to Monetville.

N. W. Miramichi River, N.B.—

Geoffrey Stead, district engineer. Day labour.

Quantity removed, 73 snags.

Total expenditure, \$102.

Work commenced May 27, 1920; completed July 23, 1920.

Object of work: Removal of snags from channel.

N. W. Miramichi River, N.B.—

Under contract No. 12785 with Miramichi Dredging Company, Limited, dredge *Peter England*.

Quantity removed: 11,647.9 cubic yards, scow measurement, at 54½ cents per cubic yard. Class B. Sand and gravel.

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N. W. Miramichi River, N.B.—Concluded.

Amount passed for payment, \$6,377.22; inspection, \$500.50; total expenditure, \$6,877.72.

Work commenced June 29, 1920; completed October 8, 1920.

Object of work: The dredging of three shoals: Goodfellow Bar, Cassilis and Lawlor's Shore in upper channel of Northwest Miramichi river.

Oakville, Ont.—

Under contract No. 12881 with C. S. Boone Dredging and Construction Company, Limited, dredge *Meade*.

Quantity removed: 16,603 cubic yards, place measurement, at 65½ cents per cubic yard. Class B. Mud, sand, layer rock and stones.

Total expenditure, \$10,874.97.

Work commenced July 23, 1920; completed August 30, 1920.

Object of work: Cleaning out the channel 50 feet wide to a depth of 12 feet below elevation, 245.

Pointe à Brosseau, Que.—

J. T. Bertrand, district engineer. Day labour.

Quantity removed: 125 cubic yards, place measurement. Rock.

Total expenditure, \$314.75.

Work commenced September 11, 1920; completed October 19, 1920.

Object of work: Removal of obstructing boulders from shelter basin.

Port Arthur, Ont.—

Under contract No. 12833, with Canadian Dredging Company, Limited, dredge *Excelsior*.

Quantity removed: 151,003 cubic yards, scow measurement, at 28 cents per cubic yard. Class B. Clay, sand and hardpan.

Amount passed for payment, \$42,280.84; inspection, \$425; total expenditure, \$42,705.84.

Work commenced July 19, 1920; completed October 23, 1920.

Object of work: (1) To deepen C.N.R. elevator, Slip B.

(2) To dredge channel leading to dry dock and channel from entrance channel to layto berth, and clean up shoal areas in layto berth.

(3) To dredge shoal spots in main entrance channel.

(4) To dredge slip at Thunder Bay elevator.

Port Hope, Ont.—

Under contract No. 12868 with Frontenac Dredging Company, Limited, dredge *St. Lawrence*.

Quantity removed: 2,551.2 cubic yards, place measurement, at \$1.70 per cubic yard. Class B. Silt, sand, shale, rock.

Amount passed for payment, \$4,337.04; inspection, \$176.50; total expenditure, \$4,513.54.

Work commenced July 10, 1920; completed August 10, 1920.

Object of work: To dredge to a depth of 13 feet, berths in inner west harbour.

Port Hope, Ont.—

Under agreement with Frontenac Dredging Company, Limited, dredge *St. Lawrence*.

Quantity removed: 2,137.4 cubic yards, place measurement, at 85 cents per cubic yard. Class B. Sand, silt, shale.

Total expenditure, \$1,816.79.

Work commenced July 31, 1920; completed August 10, 1920.

Object of work: To extend channel inward in East Harbour.

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Porter's Lake Canal, N.S.—

W. P. Morrison, district engineer. Day labour.

Total expenditure, \$698.

Work commenced July 22, 1920; completed October 7, 1920.

Object of work: To clean out silted in material at upper end of canal.

River St. Charles, N.B.—

Geoffrey Stead, district engineer. Day labour.

Quantity removed: 394.1 cubic yards, scow measurement.

Total expenditure, \$243.

Work commenced July 3, 1920; completed July 9, 1920.

Object of work: Cleaning channel through shoal areas.

St. John, N.B. (Deep Water Berths)—

Under contract No. 12912 with J. A. Gregory, dredge *Beacon Bar*.

Quantity removed: 35,000.9 cubic yards, scow measurement, at 32 cents per cubic yard. Class B.

Amount passed for payment, \$11,387.70; inspection, \$521.50; total expenditure, \$11,909.20.

Work commenced September 25, 1920, suspended for season February 21, 1921.

Object of work: To maintain a depth of 32 feet.

Sault Ste. Marie, Ont.—

W. J. Fuller, district engineer.

Total expenditure, \$481.68.

Object of work: Sweeping channel and harbour.

Sault Ste. Marie, Ont.—

Under contract No. 12405, for hire of plant, with Soo Dredging and Construction Company, Limited, dredge *Derrick No. 24*.

Quantity removed: 280 cubic yards, scow measurement. Class A/B. Loose rock and boulders.

Total expenditure, \$2,500.

Work commenced June 14, 1920, completed July 3, 1920.

Object of work: Removal of obstructions in St. Mary's river to a depth of 21.5 feet L.W.L.

Sturgeon Point, Ont.—

J. M. Wilson, district engineer. Day labour.

Total expenditure, \$140.

Work commenced August 30, 1920, completed September 2, 1920.

Object of work: Removal of boulder reported to be an obstruction in channel.

Thames and Sydenham Rivers, Ont.—

H. B. R. Craig, district engineer. Day labour.

Total expenditure, \$2,433.23.

Object of work: Removal of snags from navigable sections of Thames and Sydenham rivers.

Verdun-La Tortue Channel, Que.

J. T. Girard, district engineer. Day labour.

Total expenditure, \$1,482.30.

Work commenced May 26, 1920, completed August 26, 1920.

Object of work: Removing boulders and other obstructions from the channel between Verdun and La Tortue.

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Whitby, Ont.—

Under contract No. 12881, with C. S. Boone Dredging and Construction Company, Limited, dredge *Meade*.

Quantity removed: 7138.6 cubic yards, place measurement, at 64½ cents per cubic yard. Class B. Sand and Clay.

Amount passed for payment, \$4,604.40, inspection, \$55; total expenditure, \$4,689.40.

Work commenced September 3, 1920; completed September 22, 1920.

Object of work: Dredging a channel 50 feet wide to a depth of 14 feet and a basin at the coal loading wharf below elevation 245.

William Head, B.C.—

Under contract No. 12837 with Pacific Construction Company, Limited, dredge *P. S. B. & D. No. 1*.

Quantity removed: 26,823 cubic yards, place measurement, at 48 cents per cubic yard. Class B.

Amount passed for payment, \$12,875.04; inspection, \$153; total expenditure, \$13,028.04.

Work commenced July 12, 1920, completed July 19, 1920.

Object of work: Dredging at Quarantine Station (Main and Coal wharfs).

Windsor, N.S.—

W. P. Morrison, district engineer. Day labour.

Quantity removed: 550 cubic yards, place measurement.

Total expenditure, \$480.50.

Work commenced July, 1920, completed July, 1920.

Object of work: To remove mud down to a general level of 20 feet below the top of wharf at Railway Department wharf.

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CALENDAR YEAR DEPARTMENTAL DREDGING 1920.

MARITIME PROVINCES.

Dredge.	Date.	Locality.	Material.	Quantity cu. yds.	Cost Locality.	Total Expend.	Cost per cu.yd.
"No. 1"	Jan. 1-Feb. 20...	St. John, N.B. Inner channel.	Gravel, mud and sand.	61,539	\$ cts. 19,576 42	\$ cts. ...	\$ cts. 0-318
	Feb. 21-April 23 May 3-18, 26, 27, 31 and June 1.	Digby, N.S., channel.....	Mud, sand and rock.	111,324	40,216 05		0-361
	April 24-May 1 and 19, 25, 28, 29 and June 2-5	Digby, N.S., Raquette..	Mud, sand and rock	17,636	7,372 88		0-418
	July 7-17.....	St. John, N.B., Winter port berths.	Mud	14,177	7,442 24		0-525
	July 19-Aug. 5.	St. John, N.B., Long wharf..	Mud, sawdust.....	6,060	3,524 62		0-581
	Aug. 6-Oct. 7...	Liverpool, N.S., channel.....	Mud, sawdust and sand.	38,050	23,771 35		0-625
				248,786 240	1,348 58	101,903 56	0-410 5-619
"No. 2"	May 13-17	Sydney, N.S., wharf.....	Stone, clay and rocks.	3,119	2,215 53		0-712
	May 18-29.	New Campbellton, N.S.	Clay, mud, rock...	1,200	770 62		0-642
	May 31.....	Kelly's Cove, N.S., coal pier.	Mud and clay.....	3,858	4,431 06		1-118
	June 1-14...	Pictou, N.S., Govt. wharf....	Hard clay, mud, sand, logs, stone..	55,130	28,031 26		508
	July 5-Sept. 24	Buctouche, N.B., channel.....	Sand, mud, clay and logs.	11,296	9,151 10		0-810
	Sept. 27-Oct. 25.	Newcastle, N.B., N.W. bar...	Sand, sticks, mud, logs.	900	1,070 60		1-177
	Oct. 26-29....	Newcastle, N.B., Sullivan's wharf.	Old logs and sticks..	75,735		47,007 75	0-621
"No. 3"	May 21-July 9..	Bathurst, N.B., Fourth range.	Sand and clay.....	39,334	16,977 21		0-431
	July 10-22, 26, 31 and Sept. 13, 14, 20 and Oct. 1, 2, 6 and 7	Bathurst, N.B., Third range..	Sand and clay.....	21,518	9,603 50		0-446
	July 23, 24 and Aug. 13-21, 28- 30, Sept. 15-18 and 20-25, 27- 30 and Oct. 4-5.	Bathurst, N.B., Outside bar.	Sand and clay	31,665	14,390 79		0-454
	Aug. 2-12, 23-27, and 31, Sept. 4 and 6-11	Bathurst, N.B., Ripple bar....	Sand and clay.....	13,693	7,010 76		0-512
				106,210		47,982 26	0-452
	May 18-June 3...	Trenton, N.S., Cantley Pt...	Mud and gravel	6,820	3,562 72		0-522
	June 4-14.....	Trenton, N.S., Chambers Pt.	Sand and gravel	4,515	3,117 38		0-690
"No. 4"	June 15.....	Trenton, N.S., wharf.....	Mud	576	334 00		0-580
	June 16-18.....	Pictou, N.S., Rly. wharf.....	Mud	768	380 67		0-507
	June 19-July 8...	New Campbellton, N.S., wharf	Mud and stone.....	4,992	2,616 37		0-524
	July 9-Oct. 5....	Glace Bay, N.S., wharf	Silt, mud, stone, clay	31,024	15,586 90		0-472
	Oct. 6-29.....	Sydney, N.S., wharf....	Clay and stone	768	612 34		0-797
				51,463		26,219 38	0-509
	May 21-Oct. 28..	Yarmouth, N.S., channel.....	Mud and sand	285,594	14,504 68		0-155
"No. 5"	Oct. 30-Nov. 9..	Yarmouth, N.S., Marine slip.	Mud, sand and gravel	3,848	1,622 16		0-421
				289,442		46,126 84	0-159
	June 21-July 8..	Charlottetown, P.E.I., Bun- tain and Bell's wharf.	Mud, rock, wood, sand	9,595	5,310 93	465 58	0-553
	July 8-28.....	Charlottetown, P.E.I., C.N.R. wharf.	Mud, sand	11,115	7,641 24		0-687
	July 29-Aug. 20	Charlottetown, P.E.I., A Pickard & Co.'s wharf.	Mud, sand and clay.	12,000	6,719 95		0-560
	Aug. 21-Sept. 18	Vernon Bridge, P.E.I.....	Mud	13,555	7,587 05		0-388
	Sept. 20-Oct. 23	Vernon, P.E.I.....	Mud, sand, brick, clay.	25,620	14,469 58		0-565
"No. 6"				77,895		41,728 75	0-536
	May 8-July 17	Not in commission.				583 38	
	May 8-July 17	Bay Fortune, P.E.I., channel	Sand, gravel, rock, wood, clay, iron last, boulders.	10,848	10,339 44		0-953
	July 19-Aug. 7...	Georgetown, P.E.I., ferry dock.	Silt and soft mud...	2,071	2,374 06		1-146
	Aug. 9-Sept. 9...	Bellevue's Cove, P.E.I.	Rock and gravel	4,007	4,748 15		1-018
	Sept. 10-Oct. 1	Bellevue's Cove, P.E.I., breakwater	Rock and gravel	4,007	4,748 15		1-018
	Sept. 10-Oct. 1	Charlottetown, P.E.I., dock	Mud, hardpan, brick clay, iron last	7,140	7,769 67		1-088
"No. 10"				24,724		15,241 7	1-021
"No. 11"							

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CALENDAR YEAR DEPARTMENTAL DREDGING 1920—Continued

MARITIME PROVINCES.

Dredge.	Date.	Locality.	Material.	Quantity cu. yds.	Cost Locality.	Total Expend	Cost per cu. yd.
				\$ cts	\$ cts		\$ cts.
"No. 12"		Not in commission.....				1,643 67	
"No. 13"	June 9-Aug. 14... Aug. 28-Sept. 30.	Margaree Harbour, N.S.	Sand, gravel, rock, clay, mud, ballast, boulders.	66,895	46 680 94		0-697
	Aug. 16-27	Chimney Corner, N.S.....	Rock, sand, mud and gravel.	2,480	2,578 48		1-039
	Oct. 21-29.	Mulgrave, N.S., railway dock.	Ashes and rock.....	1,743	2,202 44		1-283
	Oct. 30-31.	Point Tupper, Ferry dock.....	Gravel and rock.....	330	429 77		1-302
	Nov. 1-25..	Sydney, N.S., wharves	Mud, clay and rock.	4,977	5,855 28		1-176
				76,425		57,746 91	0-755
"No. 14"		Not in commission..				63 35	
"No. 15"	June 16-Oct. 16.	Middle South, N.S.	Mud.	15,891	5,284 72		0-332
	May 3-June 15 and Nov. 17- Dec. 1.	Lunenburg, N.S. Marine railway.	Mud	4,139	2,124 35		0-513
	Oct. 17-Nov. 16.	Lunenburg, N.S., Back har- bour	Mud..	3,330	1,169 44		0-351
				23,301		8,578 51	0-366
"No. 115".....		Not in commission (extensive repairs).				52,438 96	
"Stonelifter No. 1."		Not in commission.....				3,605 78	
"Rockbreaker No. 3."		Rented to Can. National Rail- ways				391 75	
Office Staff and expenses.						4,611 95	

ONTARIO AND QUEBEC.

"No. 1" (Q. & R.).	Aug. 3- Sept. 11. Sept. 13-Oct. 9.	Jeannette's Creek, Ont. Kingsville, Ont.....	Sand, clay. Sand.	31,364 8,959	38,166 30 17,140 13		1-216 1-913
				40,323		55,306 43	1-371
"No. 102".....		Not in commission				127 69	
"No. 103".....		Not in commission				2,804 01	
"No. 106".....		Not in commission. (Sold)				295 76	
"No. 109".....		Not in commission (extensive repairs)				41,374 28	
"No. 110".....	May 20-26 May 31-Oct. 25..	Murray Bay, Que..... Port Alfred, Que.	Hardpan and clay.. Clay and sand.....	3,505 187,920	2,241 07 67,857 74		0-639 0-361
				191,425		70,098 81	0-366
"No. 111".....		Not in commission.				63 55	
"No. 112".....		Not in commission.....				720 00	
"No. 115".....		Not in commission (transferred to M.P.).				4,243 74	
"No. 116".....	June 9-Aug. 19... Aug. 22-Sept. 11.	Batiscan, Que..... Doucette's Landing.....	Sand Sand, clay and boul- ders.	47,029-8 16,686	35,066 50 11,153 11		0-745 0-668
	Sept. 13-15.....	Three Rivers, Que.	Sand and clay	1,915-8	1,804 23		0 941
				65,631-6		48,023 84	0-731
"No. 117".....	May 15-June 1... June 2-10.....	Port Burwell, Ont. Ericau, Ont.....	Sand, silt, mud..... Sand, gravel and mud.	12,228 10,126	5,417 32 3,429 68		0-443 0-338
	June 11-Aug. 17.. Aug. 18-Nov. 30	Port Stanley, Ont.. Port Burwell, Ont.	Sand, silt, mud Mud, sand, clay, silt	92,316 118,848	28,684 41 36,206 26		0-310 0-304
				233,518		73,737 67	0-315
"No. 118".....		Not in commission				20 00	
"No. 119".....		Not in commission				822 47	
"No. 120".....		Not in commission				5,616 95	
"No. 121".....	May 8-20 May 21-June 25.. June 26-Sept. 15.	Île du Pads, Que.. St. Denis Notre Dame de Pierreville, River St. Francis.	Sand and clay. Clay Sand	2,720 8,887 20,336	1,685 72 4,707 68 10,669 37		0-619 0-529 0-524
				31,943		17,062 77	0-534
"No. 122".....		Not in commission				6 75	
"No. 123".....	April 29-May 31. June 1-Sept. 18..	River St. Maurice, P.Q. Vaudreuil, P.Q.....	Sand and clay Clay	23,633 90,236	10,515 45 30,859 28		0 444 0 341
				114,869		41,374 73	0-363

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CALENDAR YEAR DEPARTMENTAL DREDGING 1920—Continued
ONTARIO AND QUEBEC—continued.

Dredge.	Date.	Locality.	Material.	Quantity cu. yds.	Cost Locality. \$ cts.	Total Expend. \$ cts.	Cost per cu. yd. \$ cts.
"Harricana"...	July 31-Aug. 31..	Landrienne River (mouth)....	Clay.....	3,416	1,935 90		0.566
	Sept. 1-Oct. 30..	Lake DeMontigny, Askogi- wash River.	Clay	8,552	3,464 15		0.405
				11,968		5,400 05	
"Stonelifter No. 1."		Not in commission				4 80	
"Stonelifter No. 2"		Not in commission				89 81	
"Steam Derr- ick"		Not in commission				17 75	
"Sweep Scow".						57 00	
"Victoria Is- land Ship- yard."		Maintenance, repairs, contin- gencies.				10,199 85	
"Spare Scows".						1,311 06	
"Messengers".						1,795 95	

MANITOBA, SASKATCHEWAN AND ALBERTA.

"No. 201".....	June 3-Sept. 3...	Mouth of Red River....	Sandy clay	53,821	7,380 12		0.137
	Sept. 4-Oct. 28..	Selkirk, Middle Ground.	Clay, sand, gravel..	62,890	7,955 20		0.126
				116,711		15,335 32	0.131
"No. 202"		Not in commission.....				1,183 72	
"No. 204"	Aug. 18-Oct. 14..	Big Georges Island.....	Rock and clay	2,728		11,979 57	4.391
"No. 205"	June 3-11	St. Andrews lock and dam....	Mud and rock.	2,251	2,159 49		0.958
	June 12-July 22..	Winnipeg Beach.....	Gumbo.....	8,689	4,100 03		0.471
	July 22-Sept. 23.	Winnipeg	Mud.....	14,065	8,262 58		0.587
	Sept. 23-Oct. 7..	Selkirk Slough	Mud	2,813	2,190 93		0.778
				27,820		16,713 03	0.600
"No. 208".....	June 4-Oct. 2.	The Pas, Man	Sand, clay, gumbo, gravel, boulders and stone.	17,400		13,147 00	0.755
"No. 210".	June 4-Sept. 13..	Mossy River channel	Mud, hardpan, boul- ders, hard clay, silt and clay.	8,585		12,604 81	1.468
Tug "Hecla"...		Transferred to Marine Dept.				116 40	
"Montgomery"						25 00	
"Floating Pile Driver."						1,430 20	
"Selkirk Shid- yard."						3,456 68	

BRITISH COLUMBIA.

"No. 301".....	April 12-30	Woodward Slough	Silt and debris	1,388	2,748 09		1.97
	May 3-June 5....	Powell River, Govt. wharf....	Clay, boulders	14,158	10,752 30		0.759
	June 7-15	(Powell River Co. Log Pond..	Hardpan, clay, boul- ders and pulp.	60,046	48,482 75		0.807
	July 31-Oct. 9...	Nanaimo, Western Fuel Co....	Rock.....	406	3,052 80		6.50
	July 20-30 and Oct. 11-28.						
	Oct. 29-Dec. 31	B.C. Marine G.H.O., Shad Ch. Gibsons.	Gravel	28,329	15,790 20		0.557
				164,299		81,826 14	0.774
"No. 302"		Not in commission				1,276 55	
"No. 303"	Jan. 1-10, Aug. 16	Woodward Cut	Sand, silt	325,182	36,225 70		0.111
	Sept. 4, Sept. 13 Nov. 15, Dec. 6-31.						
	Jan. 12-Feb. 7,	Wallace Shipyard, G.O.H.,	Sand and silt	545,917	53,505 78		0.098
	Feb. 9-July 21,	Sandheads					
	July 29-Aug. 14.						
	July 22-28, Sept. 5-11 Nov. 16, Dec. 4.	B.C. Marine, North Arm chan- nel.	Sand and silt	39,278	5,770 21		0.146
				910,377		85,501 69	0.104

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CALENDAR YEAR DEPARTMENTAL DREDGING 1920—*Continued*BRITISH COLUMBIA—*Continued*

Dredge.	Date.	Locality.	Material.	Quantity cu. yds.	Cost Locality.	Total Expend.	Cost per cu. yd.
"No. 305"...	Jan. 1-Mar. 2.	King Edward Cut.....	Sand and silt.	132,035	cts. 15,160 40	\$ cts.	\$ cts. 0 114
	Mar. 11-15.						
	Mar. 2-10....	Oilery Slough.....	Sand and silt.....	14,530	2,191 17		0 15
	Mar. 17-May 22	North Arm Cut No. 1.	Sand and silt....	382,785	44,814 01		0 117
	June 28-Sept. 6, Sept. 9-Oct. 30.						
	May 24-June 11..	Wallace Shipyard (general overhaul).					
	June 12-26.....	Celtic Cannery.....	Debris.....	13,850	2,721 18		0 196
	Sept. 7-8.....	North Arm Lumber Co.....	Debris.....	3,890	590 97		0 151
	Nov. 1-13.....	Bucklin Lumber Co.....	Debris.....	11,987	3,390 05		0 282
	Nov. 13-Dec. 31	Ballantyne Pier.....	Sand and gravel.	50,946	15,798 78		0 31
"No. 306". "No. 307". "No. 311"		Not in commission		610,021		84,666 56	0 138
		Not in commission.....				7,119 10	
						2,994 00	
	Jan. 1-April 27	Cottonwood Point, Diversion Channel, Columbia River Narrows.	Sand, gravel, rocks and clay.	35,001	11,166 89		0 318
	Oct. 21-Dec. 4.	Two Beacon Bar.....	Sand, gravel, clay..	25,515	5,589 06		0 219
	Dec. 6-31.....	Cottonwood Point, Diversion Channel, Columbia River Narrows (Cleaning new chan- nel.)	Sand and gravel....	11,250	2 076 28		0 184
				71,766		18,832 23	0 262
"No. 313".....		Not in commission. (Sold)...				70 36	
"Rockbreaker No. 1."	June 12-July 17..	Nanaimo, Western Fuel Co...	Rock.	430 (Est.)	6,992 24	6,922 24	16 26
"Rockbreaker No. 2."		Not in commission.....				1,017 59	
"Drilling Plant".		Not in commission.				238 35	
"Office Trench etc."						1 837 05	

DEPARTMENTAL RUCKLE LADDER DRUDGES, ETC.

Name	Official Registry Number.	Tonnage.	Where built.	Builder	Cost (£)	Present estimated value.	Hull				Main Engines			Propelling Engines.			
							Material	Length O.A.	Breadth O.A.	Weight of outfit	Depth	Type.	Size.	Maker.	Number	Type.	Size.
P.W.D. No. 1	134,184	1886-76 G. 1605	1905 Sorel, Que.	Dept. Pub. Wks.	612,781	600,000	Steel	215-42	0	11-0	17-0	Triple expansion	14", 22", & 33" x 22"	Polson Iron Works.	2	Triple expansion.	11", 22" & 36" x 22"
P.W.D. No. 2	71,716	1875 R. 290	1875 Renfrew, Scotland	Wm. Simons & Co., Ltd.	100,000	30,000	Iron.	182-32	0	8-0	13-6	Marine.....	28" x 21" ..	Wm. Simons & Co., Ltd.	1	Fore and aft	18" x 21"
P.W.D. No. 7	Sold.																
P.W.D. No. 9	129,520	1877-78 H. 4-75	1910 Renfrew, Scotland	Wm. Simons & Co., Ltd.	210,000	200,000	Steel	210-36	0	11-0	..	Fore and aft compound.	18" & 36" x 24"	Wm. Simons & Co., Ltd.	2	Fore and aft compound	18" 36" x 21"

Name	Boilers			Fuel	Capacity	Kind	Work in depth.	Length of ladder.		Number.	Buckets	Hoppers	Anchor Cables	Anchor Engines	Condenser.	Average capacity per day	Cu Yds per hour			
	Type	Pressure	Length					Manometer	Manometer								Clay	Gravel	Clay and Gravel	Gravel
P.W.D. No. 1	2 Cylindrical	13-0	11-6	160-4 tons	170 tons.	Soft coal...	52	11-108	0-39	1 c.y.	2	500	6-17" & 14" 2-10" x 10"	Double	3' 0" x 8' 5"	27	7000	1000	1000	1400-80
P.W.D. No. 2	1 Scotch Marine.	14-6	9-6	50-4 tons	55 tons...	Sydney coal	28	11-65	0-32	1 c.y.	6	2	7" x 12"	Double	3' 0" x 8' 5"	17	1200	100	200	130-200
P.W.D. No. 3	1 Scotch Marine.	12-9	12-6	120-16 bbls	200 bbls.	Crude oil..	50	15-130	0-46	15 c.ft	1	1	11", 1 1/2", 1 1/2", 1 1/2", 1 1/2"	Simple	8' 0" x 10' 10"	22	3000	150	300	100-4200

Includes boulder - ²And donkey ³Includes boulders ⁴Hoppers not usable

SESSIONAL PAPER No. 19

DEPARTMENTAL HYDRAULIC DREDGES, 1921.

Name	Official Registry Number.	Tonnage.	Where built	Builder	Cost equipped	Present estimated Value	Hull			Pumping Engines			Horse power.	
							Material.	Length OA	Breadth OA	Working draft loaded	Type.	Size		
P.W.D. No. 3.	130,642	G. 469 (R. 319)	Rotterdam	Johni & Co	80,397	75,000	Steel	162' 0"	29' 9"	10' 0"	13' 0"	Triple expansion	11' 6", 16' 7", 27' 10" x 18"	300
P.W.D. No. 5	134,187	G. 796	Toronto	Pelton Iron Works	12,770	48,000	Steel	131' 6"	52' 0"	6' 6"	6' 6"	Triple expansion	14", 2' x 16" x 2"	600
P.W.D. No. 12	133,759	G. 434-84 (R. 191)	St John, N B	Phoenix Foundry & Mach. Co	82,500	82,500	Steel	110' 0"	32' 0"	3' 10"	3' 10"	Triple expansion	13", 13 1/2" x 22" x 16"	200
P.W.D. No. 201	134,607	G. 412-46 (R. 106)	Solkark, Man	Pelton Iron Work	40,000	18,000	Wood	170' 0"	33' 0"	5' 0"	5' 0"	Compound	10" & 20" x 12"	240
P.W.D. No. 303	150,501	G. 4023 (R. 107)	Danzig, Germany	Stechan & Co	259,000	210,000	Steel	200' 0"	36' 0"	11' 0" x 13' 0" x 5' 0" & 15' 0"	5' 0" & 15' 0"	Compound	2-13 1/2" & 2' x 15"	240
P.W.D. No. 305	150,502	G. 4591-63 (R. 319-38)	New Westminster, B.C.	Pelton Iron Works	150,172	100,000	Steel & wood	140' 0"	35' 0"	5' 8"	5' 8"	Triple expansion	13-13 1/2", 2' x 36" x 21"	500

Name	Propelling Engines.			Boilers.			Fuel		Discharge Pipe.	Hopper	Working Depth	Average capacity (Cu Yds per 10 hours)	Cu Yds per Hour					
	Type	Size	Pressure	Number	Type	Diameter	Length	Horse power					Fuel consumption per day of 10 hours	Capacity	Kind	Size of section	Gravel	Clay	Soft	Sand and silt.	Coal, gravel, and boulders.
P.W.D. No. 3	None		150	1	Scotch Marine	12' 6"	10' 0"	1 1/2 tons	27 tons	27 ton	Soft coal		3415	1,700	600	900	487	700
P.W.D. No. 5	None		160	2	Scotch Marine	12' 0"	12' 0"	8 tons.	200 tons	200 tons	Soft coal		5000	1,015	550	1,000	300	100
P.W.D. No. 12	None		160	1	Scotch Marine	9' 11"	12' 0"	1 tons.	45 tons	2 tons	Soft coal		1500	1,300		270		
P.W.D. No. 201	Simple	14" x 16"	150	2	Scotch	7' 0"	9' 0"	11 tons	15 tons	2 tons	Soft coal		725	800				
P.W.D. No. 303	Compound	4-1 1/2" & 25"	128	2	Cylindrical	12' 0"	10' 0"	40 bbls	740 bbls	10 bbls	Coal		10000	1,600	1400	500	1500	
P.W.D. No. 305	Horizontal	16" x 17"	172	2	Horizontal water tube	8' 0"	20' 6"	40 bbls	300 bbls	300 bbls	Coal		5000	500	800	100	150	650

18-horse engine for pumping and propulsion. And donkey boiler, 12" water pipe, 8' 0" W x 12' 6" H x 20' 6" T. 2 wheels, 4 coupled wheels, 4 coupled wheels, 4 coupled wheels.

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DEPARTMENT OF PUBLIC WORKS

No.	Original Location	Location	Worked by	Builder	Hull.			Fuel Capacity.	Kind of Fuel	Type	Main Engines.
					Present Value.	Material.	Age.				
P.W.D. No. 6.	W.P. 100.	200-71-100	Toronto, Ont.	Bertram Engine Works	19,350	55,000 Steel	90	7 0 31 tons	Soft coal	Simple	(2) 10" x 11"
P.W.D. No. 9.	W.P. 100.	244-20-1871	Saguenay, P.Q.	John McKinnon	22,000	9,500 Wood	81	6 8 10 tons	Soft coal	Simple	16"
P.W.D. No. 10	W.P. 100.	192-12-1011	Port Hope, Ont.	Burns & Waters, Hull, P.Q.	24,000	30,000 Wood	64	4 8 10 tons	Soft coal	Simple	(2) 8 1/2" x 12"
P.W.D. No. 3.	W.P. 100.	4-1	Ottawa, Ont.	P.W.D.	80,000	89,900 Wood	99	7 0 45 tons	Soft coal	Simple	(2) 12" x 14"
P.W.D. No. 4.	W.P. 100.	1-11	Ottawa, Ont.	P.W.D.	83,000	80,000 Wood	90	8 0 22 tons	Soft coal	Simple	(2) 10" x 14"
P.W.D. No. 10.	W.P. 100.	1901-1-100	Ottawa, Ont.	P.W.D.	14,360	12,000 Wood	55	8 0 22 tons	Soft coal	Simple	8" x 12"
P.W.D. No. 10.	W.P. 100.	1-1	Que.	P.W.D.	21,600	18,000 Wood	66	2 6 6 1/2 tons	Soft coal	Simple	(2) 8" x 12"
P.W.D. No. 10.	W.P. 100.	104	Que.	P.W.D.	23,000	18,000 Wood	65	2 6 6 tons	Soft coal	Simple	(2) 8 1/2" x 12"
P.W.D. No. 10.	W.P. 100.	7-2-10	Que.	Superior Dredge Co.	200,000	200,000 Wood	133	9 0 100 tons	Soft coal	Simple	(2) 18" x 24"
P.W.D. No. 10.	W.P. 100.	45-2-18	Que.	Michael Connelly	75,000	75,000 Steel	109	11 0 35 tons	Soft coal	Compound	12" & 24" x 14"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	21,642	18,000 Wood	75	11 0 20 tons	Soft coal	Simple	12 1/2" x 15"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	81,544	70,000 Wood	97	13 0 25 tons	Soft coal	Simple	(2) 14" x 16"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	75,000	70,000 Wood & steel	92	11 0 35 tons	Soft coal	Simple	(2) 14" x 16"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	102,000	175,000 Steel & wood	110	8 0 80 tons	Soft coal	Simple	(2) 16" x 18"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	19,600	10,000 Wood	66	5 0 3 1/2 tons	Soft coal	Simple	(2) 8" x 14"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	23,250	17,000 Wood	73	4 6 13 tons	Soft coal	Simple	(2) 7" x 14"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	50,000	30,000 Wood	85	9 0 18 tons	Soft coal	Simple	12" x 14" (2)
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	21,020	18,000 Wood	61	2 6 6 tons	Soft coal	Simple	(2) 8 1/2" x 12"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	80,238	80,000 Wood	96	7 0 55 tons	Soft coal	Simple	(2) 12" x 12"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	15,000	10,000 Wood	82	4 6 20 tons	Soft coal	Simple	(2) 8" x 16"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	40,000	30,000 Wood	80	7 0 20 tons	Soft coal	Simple	(2) 10" x 14"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	14,000	12,000 Wood	70	5 6 14 cords	Wood	Double	8" x 12"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	131,216	103,500 Steel	108	8 0 340 bbls.	Oil	Simple	(2) 14" x 16"
P.W.D. No. 10.	W.P. 100.	1907-1-100	Que.	P.W.D.	24,000	15,000 Wood	95	6 0 15 tons	Soft coal	Simple	(2) 13" x 13"

As of 1900. 1900. 1900. 1900. 1900. 1900. 1900. 1900. 1900. 1900. 1900. 1900.

SESSIONAL PAPER No. 19

Name	Boilers.					Spuds.			Work- ing Depth.			Dip- pers.	Dipper Arm.		Main Hoist Liné.			Province where employed.		
	Number	Type	Dia	Length.	Press. Allowed.	Horse- Power.	Fuel consum- ed per 100 lb.	Number	Size	Material	Max.		Min.	Number	Size	Material.	Length of Boom		Material	Length.
P.W.D. No. 9....	1	Scotch.....	9 2	10 0	145	52 1/2	3 tons...	2	24"x24"x50'	Fir	26 0	8 0	2	2 1/2	16"x16"x45'	Oak	42 0 1 1/2	Wire rope.	250	12 Mar. Prov.
P.W.D. No. 10....	1	Locomotive	5 6	10 2	50	26 1	ton....	3	(2) 14"x16"x46' (1) 14"x16"x42'	Hard pine with iron plates	22 0	9 0	2	1 1/2	14"x13 1/2"x37' 9"	Oak	31 0 1	Wire rope.	225	11 Mar. Prov.
P.W.D. No. 11	1	Scotch.....	6 6	8 0	140	30	1000 lbs.	3	(2) 15"x15"x38' (1) 15"x15"x35'	Rock Maple	17 0	5 0	1	1	1 9"x9"x32'	Oak	29 6 1	Wire rope.	210	9 Mar. Prov.
P.W.D. No. 13....	1	Scotch.....	9 0	10 0	140	...	2 1/2 tons..	2	30"x30"x41' 4"	Oak	20 0	8 0	2	(1) 3 1/2	14 1/2"x17 1/2"x39'	Oak & steel	40 0 1 1/2	Wire rope.	350	12 Mar. Prov.
P.W.D. No. 4....	1	Scotch.....	8 6	9 7	140	53 2 1/2	tons..	3	(2) 24"x24"x52' (1) 20"x20"x52'	Fir	22 0	8 0	1	2 1/2	18"x17"x42' 2"	Oak	38 3 1 1/2	Wire rope.	175	13 Ont. & Que
P.W.D. No. 101..	1	Locomotive	3 6	12 0	100	35 2	tons..	3	12"x12"x18'	Fir.....	16 0	4 0	1	1	9"x12"x23' 0"	Oak	22 0	Chain	140	7 Ont. & Que
P.W.D. No. 102..	1	Locomotive	4 4	13 0	125	37 1 1/2	tons..	3	12"x12"x33' & 37"	Oak	16 0	3 0	1	1	8 1/2"x10"x26'	Oak	29 3 1/2	Chain	200	8 Ont. & Que
P.W.D. No. 103..	1	Locomotive	4 4	13 0	120	37 1	ton....	3	12"x12"x32' & 35"	Oak...	16 0	6 0	1	1	9 1/2"x10"x27' 6"	Steel & wood	30 0	Chain.....	200	8 Ont. & Que
P.W.D. No. 109..	1	Scotch.....	12 6	10 6	130	...	5 tons...	3	(2) 40"x40"x53' (1) 30"x30"x53'	Fir.....	27 0	13 6	3	(1) 10	28 1/2"x30"x44'	Steel	51 7 2 1/2	Wire rope.	208	15 Ont. & Que
P.W.D. No. 110..	1	Scotch.....	10 0	10 6	125	120 2 1/2	tons..	4	(2) 36"x36"x56' (1) 24"x24"x52'	Fir	60 0	14 0	2	(1) 5	1 1/2" 20"x21"x64'	Oak	41 3 1 1/2	Wire rope.	350	14 Ont. & Que
P.W.D. No. 112	1	Fitzgibbon	4 7	8 7	135	48 1 1/2	tons..	2	20"x20"x42'	Oak	19 0	11 0	1	2 1/2	13 1/2"x14' 1/2"	Oak	36 0 1 1/2	Chain	172	8 Ont. & Que
P.W.D. No. 113	1	Locomotive	4 6	12 3	80	...	2 tons...	3	(2) 16"x16"x39' (1) 13"x14"x42'	Oak.....	20 0	10 0	1	2	15 1/2"x16 1/2"x36'	Oak & iron	28 6 1 1/2	Chain....	187	11 Ont. & Que
P.W.D. No. 115	1	Scotch.....	10 0	9 0	130	85 3	tons...	3	(2) 30"x30"x60' (1) 20"x21"x67'	Fir	35 0	13 0	2	(1) 4 1/2	22"x21"x59'	Fir	45 0 2	Wire rope.	220	13 Ont. & Que
P.W.D. No. 116..	1	Scotch.....	10 0	9 0	130	...	2 1/2 tons..	3	(2) 30"x30"x55' (1) 20"x21"x64'	Fir	30 0	10 0	2	(1) 3	16"x18"x49' 4"	Oak	45 0 2 1/2	Wire rope	204	14 Ont. & Que
P.W.D. No. 117..	1	Scotch.....	10 6	10 6	140	...	3 1/2 tons..	3	(2) 36"x36"x66' (1) 24"x25"x66'	Steel plates	45 0	16 0	2	(1) 2 1/2	24"x26"x66'	Steel & wood	50 0 2 1/2	Wire rope.	225	15 Ont. & Que
P.W.D. No. 118.	1	Locomotive	4 0	14 4	125	...	2 ton....	3	14"x14"x37' (1)	Oak	19 0	6 0	1	(1) 5	1 1/2"x14"x36'	Oak	34 0	1 Chain....	250	9 Ont. & Que
P.W.D. No. 119..	1	Fitzgibbon..	4 6	8 0	110	40 1	ton....	3	12"x12"x40' 6"	Oak	15 0	8 6	1	1 1/2	14"x16"x38'	Oak & steel	30 0, 1	Wire rope.	150	8 Ont. & Que
P.W.D. No. 120.	1	Locomotive	4 0	16 6	125	...	1 1/2 tons..	2	24"x24"x40'	Wood (Oak)	20 0	10 0	1	2	15 1/2"x16"34' 2"	Wood & iron	29 6 1 1/2	Wire rope.	250	8 Ont. & Que
P.W.D. No. 121.	1	Locomotive	4 4	15 0	120	37 1 1/2	tons..	3	15"x16"x45' "x12' 3/4"	Oak.....	16 0	6 0	2	(1) 1 8 1/2	18"x10"x26'	Oak & steel	30 0	Chain.....	200	8 Ont. & Que
P.W.D. No. 123	1	Scotch.....	8 6	9 6	130	30 2 1/2	tons..	3	(1) 24"x24"x46' 10"	Fir	22 0	9 0	2	(1) 3 1/2	15"x17 1/2"x39' 0"	Oak & steel	35 3 1 1/2	Wire rope.	350	11 Ont. & Que

DEPARTMENTAL CLAM-SHELL AND ORANGE-PEEL DREDGES, 1921—Concluded.

Name.	Spuds.		Boom.			Buckets.			Work- ing Depth.		Can overcast from side of dredge.	Size Hoist (Cable).	Size Trip (Cable).	Number of (Crew).	Average (Capacity).	Cubic Yards per Hour.					Province where employed.
	Number	Size.	Material.	Length	Size.	Material.	Number.	Kind.	Size.	Make.						Sand.	Silt, mud.	Gravel.	Sand and Gravel.	Silt and Sand	
P.W.D. No. 14....	4	9"x15'x26'0"	.....	60	10"x12"	Y. Pine...	1	Orange Peel.	3	Hayward	17 1/2	0	3	5	480	..	32	..	..	..	Nova Scotia.
P.W.D. No. 15....	2	16"x16"x35'	Spruce	25	10"	Spruce	1	Orange Peel.	1 1/2	Hayward	18	0	3	11	200	..	..	..	..	..	N. B.
P.W.D. No. 202...	1	12"x12"x35'	Fir	40	21"x24"	Steel	1	Orange Peel...	1 1/2	Hayward	15	4	0	6	600	60	40	40	..	..	Man., Sask., Alta.
P.W.D. No. 302...	3	14"x14"x40'	Wood	40	11"x14"	Wood.....	1	Orange Peel.....	1	Hayward	20	2	2	9	500	20	45	25	35	45	B. C.
P.W.D. No. 304...	2	12"x12"x32'	Fir	36	10"x12"	Fir.....	1	Orange Peel	1	Hayward	10	2	0	6	200	15	20	20	20	20	B. C.
P.W.D. No. 311...	1	14"x14"x36'	Wood.....	60	14"x16"	Wood	2	(1) Orange Peel	2	Hayward	14	3	0	8	900	40	90	60	70	90	B. C.
	2	14"x14"x40'				(1) Clam shell.															

¹Hard. ²And 60'. ³For dredge, scow and boat.

DEPARTMENTAL SNAGBOATS, 1921.

Name.	Official Registry Number.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull.				Fuel Capacity.	Kind of Fuel.	Average fuel consumption per day of 10 hrs.	Boilers.				Hoisting Engines.				Propelling Engines.			Diameter of wheel.	Length.	Width.	Revolutions per minute.	Speed per hour.	Length of Boom.	Height of Frame.	Number of crew.				
							Material.	Length.	Beam.	Working Draft.				Number.	Type.	Diameter.	Length.	Horse Power.	Size.	Type.	Maker.	Number.	Size.	Type.									N. H. P.			
Samsen	*	1914	Coquitlam	†	\$ 30,761	\$ 26,000	Wood	**	††	4	0	110	bbls.	Fuel oil.	Lb	7	bbls.	26,000	2' 8" x 9"	Bayfield Design.	Schaake Machine Works.	2	cyl.	14" x 5' 0"	1	14	16	18	26	9	VI	34	12	22	7
Musktrat		1892	Golden, B.C..		1,000	2,000	Wood	91	24	1	4	10	tons..	Soft coal.	1,200		2' 8" x 12"	Simple.				10	13	12	20	5	22	7								

*134304. †G. 435.94—R. 227.09. ‡Coquitlam Ship Bldg. & Mar. Ry. Co. **137. ††314. ‡‡270.

177. †Hoisting engines used.

DEPARTMENTAL DRILL PLATFORMS, SCOWS AND DIVING SCOWS, 1921

DRILL PLATFORMS

Number	Where Built	Builder	Cost Equipment	Present Estimated Value	Hull				Spade		Compressor		Gas Engine		Fuel	Remarks
					Material	Length	Breadth	Depth	Draft	Number	Size	Type	Type	Horse Power		
1	Victoria, B.C.	Alex. Watson	3,000	2,290	Fir	32	22	...	...	4	12"x12"x50'	Steam Air		40		Crew 10 Crew 8
2	Victoria, B.C.	Alex. Watson	3,350	2,200	Wood & iron	32	22	...	...	4	12"x12"x50'					

DRILL SCOWS

1			6,080	800	Fir	66	30	4	6	2	0	2	10"x10"x50'	Fir	10"x12"	Steam Hor. Pows. Engine	Coal	House & Mach'y installed by Victoria Mach'y Depot in 1913
2				6,080	Fir	86	20	6	6	2	6	2	12"x12"x60'	Fir				

DIVING SCOW

1	Victoria, B.C.	Victoria Mach. Depot Co.	177	125	Fir	18	5	10	2	6							Diver's Outfit value \$700 Crew 4
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SESSIONAL PAPER No. 19

DEPARTMENTAL LOBNITZ ROCK BREAKERS, 1921.

Name	Official Registry Number.	Tonnage	When Built	Where Built.	Builder.	Cost, equipped	Present estimated Value.	Hull.				Fuel				Boiler			
								Material	Length O.A.	Beam O.A.	Working Draft	Capacity	Kind	Average consumption per day, 10 hrs.	Number.	Type	Diameter	Length.	Horse power
P.W.D. Lobnitz No. 1	130,895	222	1911	Renfrew, Scotland	Lobnitz & Co.	70,000	\$ 60,000	Steel	100 40 3	3	8	210 bbls	Crude oil	7 1/2 bbls	1	Scotch.	5 6	58	
P.W.D. Lobnitz No. 2	137,960	(1438-39)	1914	Renfrew, Scotland	Lobnitz & Co.	61,300	\$ 60,000	Steel	100 41 0	0	5	30 tons	Coal	1 1/2 tons	1	Scotch.	5 8	58	
P.W.D. Lobnitz No. 3	133,760	(1388-79)	1912	Renfrew, Scotland	Lobnitz & Co.	62,630	\$ 54,500	Steel	100 36 0	0	5	60 tons	Soft coal	2 1/2 tons	1	Scotch.	9 0	58	

Name.	Engine.		Auxiliaries			Condenser		Anchor Spuds		Working Depth.		Breaker.			Where employed.	Erected by
	Size	Type.	Spuds.	Size.	Man-oeuvring	Size.	Type	Number.	Size.	Maximum.	Minimum	Weight	Position on Hull	Minimum Drop	Maximum Drop	Number of Crew.
P.W.D. Lobnitz No. 1	12-12"x15"	Simple.	3	6"x5"	2	7"x12"	Wheeler surface	3	2'x2'x60'	40	5-45,000 lb	Bow	1	18	10 B. C	Victoria Mach's Depot
P.W.D. Lobnitz No. 2	12"x15"	Simple.	1	6 1/4"x6"	2	7"x12"	Wheeler Surface	3	2'x2'x60'	42	12-45,000 lb	Bow	3	20	9 B. C	Morgan & Co., Vancouver
P.W.D. Lobnitz No. 3	11"x14"	Simple	..	..	2	7"x12", 2'2"x4'8"	Surface	..	..	35	8-21 tons	Centre	2	20	9 Mar. Prov.	Thompson Bros

DEPAITMENTAL STONELIFTERS, 1921.

Name.	Office Registry Number	Tonnage	When Built	Where Built.	Builder	Cost equipped	Present estimated Value	Hull			Fuel.			Boiler.				
								Material.	Length O.A.	Beam.	Working Draft	Capacity	Kind	Average consumption per day of 10 hrs.	Number.	Type.	Diameter.	Length.
P.W.D. Stonelifter No. 1						\$ 41,779	\$ 30,000	Steel	107 6	34 0	4	10 tons.	Soft coal	2 tons.	1	Scotch.	7 2	7 8
P.W.D. Stonelifter No. 101			1901	Grandes Piles, Ont.	P.W.D.	1,200	2,500	Wood.	47	24 0	4	.....	.....	.....	.....	.....	.....	.....
P.W.D. Stonelifter No. 102				Ottawa, Ont.	P.W.D.	3,000	1,000	Wood.	46	24 0	2 3	3 tons	Soft coal	1 ton	1	Upright	2 10 3	6

Name.	Hoisting Engines			Condenser		Maximum Capacity	Working Depth.		Anchors		Material of Overhead Frame.		Where Employed.	Number of Crew.	Remarks.
	Size	Type.	Make.	Size	Type		Maximum.	Minimum.	Number.	Type	Size of Hoisting Cable	Max. Width of Grips.			
P.W.D. Stonelifter No. 1	2' 9" x 10'	Single				90 tons	60	10	6	Cluke	1 1/2" Steel	14 6	Mar. Prov.	12	
P.W.D. Stonelifter No. 101	6					10 tons	20	3	1	Hand Crane	1" Pitch Pine	6 0	Ont. and Que.	11	Hand Winch.
P.W.D. Stonelifter No. 102	6	Single	Beatty			6 tons.	14	2	4	Hand Reel	1 1/2" Fir and Oak	9 0	Ont and Que.	2	Double engines.

SESSIONAL PAPER No. 19

DEPARTMENTAL FLOATING PILE DRIVERS, 1921.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull.				Fuel.			
								Material.	Length.	Beam.	Depth.	Working Draft.	Capacity.	Kind.	Average consumption per day of 10 hrs.
Kaspador		60	1908	Selkirk, Man	P.W.D.	4,000	\$ 2,500	Wood	60	22 0	4 6	24	5 tons	Coal.	1 ton.
No. 1		23	1912	Chase, B.C.	P.W.D.	2,250	1,741	Wood	46	16 0	3 0	12	..	Wood.	1 cord.
No. 3		50		Golden, B.C.	S. Mills	2,600	1,500	Wood	50	16 0	3 0	18	5 tons	Coal.	500 lbs.
No. 3		50	1911	Nakusp, B.C.		2,600	2,000	Wood	50	18 3	4 6	20	6 cords	Wood.	1 cord.
No. 6		80	1913	Nelson, B.C.	George Hale	2,400	2,000	Wood	60	20 0	4 0	40	10 cords	Wood.	1 cord.

Name.	Boiler		Hoisting Engine		Leads		Weight of Hammer.	Weight of Cup.	Distance between Leads.	Number of Crew.	Where employed.	Remarks.
	Type.	Diameter.	Length.	Size.	Type.	Height.						
Kaspador	Upright	3 6	7 0	6'x10"	Double	32	1 lb.	1 lb.	16	9	Man, Sask. Altn.	
No. 1	Vertical	2 0	6 1	5'x8"	Simple	40	2,000	2,000	16	6	B.C.	
No. 3	Tubular	3 5	6 10	6'x12"	Direct Acting	34	2,200	2,200	16	7	B.C.	
No. 3	Vertical	3 0	7 0	6'x10"	Simple	60	2,200	2,200	16	6	B.C.	
No. 6	Vertical	2 6	7 0	6'x10"	Simple	50	2,200	2,200	18	6	B.C.	^a 10' light. ^b Newark N.J., U.S.A.

DEPARTMENTAL DERRICK SCOWS, 1921.

I Number.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull.										Engines.		Boiler.				Used in connection with.	Remarks.
					Material.	Thickness of Sides.	Thickness of Bottom.	Thickness of Deck.	Length.	Beam.	Depth.	Draft, Light.	Draft, Loaded.	Number.	Size.	Type.	Type.	Diameter.	Length.	Working Pressure.			(Coal consumption per day, 10 hrs.)
a1 1911	Vancouver, B.C. Yard.	Vancouver Ship Yards, Ltd.	715	300	Wood	4	2½	2	32 4	11 2	3½	0 10	6	2							P.W.D. No. 306 a Used as water scow.	
a2 1911	Victoria, B.C.	Alex Watson	720	375	Wood	4	2½	2	32 0	12 2	1½	0 11	2	2							P.W.D. Lobnitz a No. 1. Used for taking up anchors and furnishing water.	
a3 1914	Vancouver, B.C.	W. Menchons		675	Wood	4	2½	2	32 4	12 2	6 0	0 10	2	2							P.W.D. Lobnitz a No. 2. Used for taking up anchors and furnishing water.	
4 1911	North Vancouver, B.C.	Wallace Ship Yards, Ltd.	6,400	4,950	Wood	6	4	3	70 0	26 8	4 3	0 10	6	1	(2) 8"x8" Simple	Vertical	3 6	8	100	ton	P.W.D. No. 306	
1905	Chicoutimi	P.W.D.		3,500	Wood	3	6	3	65 0	27 4	3 2	0 10	2' 3"	1	(2) 6x14" Simple	Upright	3 1	172	175	ton	Chicoutimi-Saguenay.	

SESSIONAL PAPER No. 19

DEPARTMENTAL INSPECTION BOATS, 1921.

Name.	Official Registry Number.	Registered Tonnage.	When Built.	Where Built.	Builder.	Present Estimated Value.	Hull.					Engines.						
							Cost Equipped	Material	Length O. A.	Beam Amidship.	Depth.	Working Draft.	Average Speed.	Number	Size	Type	Make	I.H.P.
J. H. Montgomery Athel (Destroyed by fire). Marion... Walronda Gaven	133710	5, 153	1915	Selkirk, Man	P W D George W. Hale W. S. Bailey & Co Davis Drydowe, Ltd	\$ 4,000	5,500	Wood	75	17 1/2	8	7 0 10 M.p.h.	1	8" & 16"x12"	Gasoline.	Compu'd	Niagara Atlas Stirling	25 20 B 11 P 12-15 B H P
Name.	Number.	Type.	Boilers.		Pro-pellers.		Fuel.		Number in Crew.	Sleeping accommodation for	Size of Life Boat.	Number of Life Belts	Where Used	Remarks.				
			Diameter.	Length.	Horse Power.	Number.	Size.	Capacity.							Kind.	Average consumption per day, 10 hr.		
J. H. Montgomery.... Marion	1	Fitzgibbon 24 6		8		1 4'6" 1 22" D x 15" P	17 tons 50 gals.	Coal.... Gasoline.	4 1	9 4	11'x4'6" 15'	12 2	Man., Sask., Alta.. B C	Condensing 7'0" H Four cylinder, four cycle.				
Walronda					2	34" D x 15 gals 32" P		Gasoline. Distillate					Prince Rupert, B.C.					
Gaven.....					1	22" D x 150 gals 2-6 P	355 gals 15 gals.	Gasoline. Gasoline	2		12'		Ottawa, District....	Dynamo Storage batteries e/c \$400.				

*Old Victoria rebuilt 1914-15 and now called J. H. Montgomery.

DEPARTMENTAL TUGS, 1921.

Name	Official Registry Number	Tonnage	When Built	Where Built	Builder	Present Estimated Value	Hull.			Fuel Capacity	Kind of Fuel.	Average fuel consumption per day of 10 hours	
							Length	Beam	Working Draft				
Helena	134,758	G 299-46, R 203-63	1907	Collingwood, Ont.	Collingwood Shipbuilding Co	52,500	50,000	91 0	23 3	12 0	50 tons	Soft coal	4 tons.
Laszar	126,490	G 210	1909	Sorel, Que.	Ponchartrand Co., Ltd	47,500	45,000	90 6	23 8	11 0	50 tons	Soft coal	3 tons.
Clasro	126,803	G 225-06, R 17-21	1910	Yarmouth, N.S.	New-Burrell-Johnson Iron Co., Ltd	46,500	45,000	91 0	22 0	10 0	50 tons	Soft coal	4 tons.
Frederickton	131,137	G 109-21, R 46-79	1913	Toronto, Ont.	Polson Iron Works	31,930	31,000	71 0	21 4	9 0	25 tons	Soft coal	2 tons.
Saguenay	126,766	G 64-33, R 5-83	1909	Bethlehem, Pa.	William Chalmers & Co	20,000	20,000	73 0	15 0	10 0	14 tons	Soft coal	2½ tons.
Marcel Reil		<i>Discontinued</i>											
Roma	112,248	G 70-05, R 12-47	1907	Liverpool, N.S.	Robt S. McLeod	8,000	5,000	82 0	20 0	8 4	8 tons	Soft coal	1½ tons.
Fulton	103,215		1907	Buckingham, Que.	W. H. Kelly	6,800	4,500	47 0	13 6	6 0	4 tons	Soft coal	1½ tons.
Alva	111,447	22	1901	Ottawa, Ont.	Capt. Henry Shaver	5,500	4,000	50 0	13 2	5 1½	5 tons	Soft coal	1 ton.
Sir John		<i>Sold</i>											
Mina G	126,529	G 23, R 14	1910	Bethlehem, Que.	W. H. Kelly	7,865	5,000	45 0	13 6	6 0	4 tons	Soft coal	1 ton.
Avenger	134,545		1910	Toronto, Ont.	Polson Iron Works	8,475	7,000	45 4	11 6	4 4	5 tons	Soft coal	1 ton.
Heracles	122,217	G 23-67, R 156-92	1906	Toronto, Ont.	Polson Iron Works	70,000	60,000	105 0	24 6	10 6	65 tons	Soft coal	2½ tons.
Archie Stewart	96,718	G 89, R 50	1890	Hull	J. Bedard			86 10	18 2	8 0	25 tons	Soft coal	1 tons.
Marie Louise	G 32-77, R 12-01	1900	Robertville, Que.	Bauchemin & Fils	1,000			55 0	15 0	4 9	25 cords	Wood, coal	2 cords.
McGee K	131,142	G 24-73, R 12-55	1912	Bethlehem, Que.	See remarks	7,000	6,000	46 0	13 0	6 0		Soft coal	
Chesapeake	126,405	22	1909	Ottawa, Ont.	J. Hall	9,000	7,000	70 9	16 8	6 4	15 tons	Soft coal	4 tons.
St. Paul		<i>Sold</i>											
Monitor	197,894	G 61-59, N 39-12	1898	Montreal, Que.	J. & R. Weir	12,500	11,000	60 6	16 0	8 6	16 tons	Soft coal	2½ tons.
Annette		<i>Sold</i>											
Fashion		<i>Sold</i>											
Storm King	88,683	G 108, R 73	1885	Chatham		15,000	18,000	90 0	21 0	10 0	28 tons	Soft coal	5 tons.
Peel	126,683	G 204-70, R 116-73	1909	Sorel, Que.	Ponchartrand Co	47,500	45,000	100 0	23 9	9 6	45 tons	Soft coal	2½ tons.
Dora	96,719	G 48, R 44	1889	Operegon, Que.	Alex. Miller	3,000	4,500	61 8	12 2	6 3½	tons	Soft coal	1 ton.
Ottawa		<i>Sold</i>											
Trudeau		<i>Sold</i>											
Blanchet	71,269	G 28, R 19	1872	Deseronto, Ont		3,000		50 0	9 6	4 6	1 tons	Soft coal	2½ tons.
Dalrymple	160,495	G 45, R 19	1893	Quebec, Que.		1,200		52 0	11 0	5 0	4 tons	Soft coal	2½ tons.
Dalhousie	61,134	G 46, R 17	1869	Buffalo, N.Y.		12,000		62 4	14 8	7 4	7 tons	Soft coal	4 tons.
Lion		<i>Sold</i>											
J. G. Witherton	122,251	G 165, R 82	1872	Philadelphia, Pa		12,000	15,000	110 0	21 9	8 0	30 tons	Soft coal	1 tons.
Parkdale	122,272	G 26, R 17-92	1910	Sedark, Man.	P. W. D.	4,000	3,000	48 0	14 0	5 0	6 tons	Soft coal	1 ton.
Pearson		G 38-93, R 24-48	1912	Sedark, Man.	P. W. D.	9,700	7,000	58 0	15 4	6 0	8 tons	Soft coal	1 tons.
Irrelay		G 38-93, R 26-48	1911	Sedark, Man.	P. W. D.	8,250	6,500	58 0	15 4	6 6	8 tons	Soft coal	1 tons.
Carberry		<i>Sold</i>											
Point Alice	139,897	G 162-67, R 69-40	1911	North Vancouver B.C.	McDougall Jenkins	48,700	44,000	99 0	21 0	10 6	99 bbls.	Crude oil	10 bbls.
Point Garry	134,203	G 19, R 13	1911	Vancouver, B.C.	Vancouver Shipyard	9,315	7,200	45 0	10 7	6 6	380 gals.	No. 1 distillate	50 gals.
Point Grey	139,917	G 238-17, R 162-16	1912	North Vancouver, B.C.	Wallace Shipyards Ltd	69,800	62,000	110 4	22 3	(F. 11) 195 bbls (A. 140)	Oil	10 bbls.	
Point Hope	139,219	G 65-05, R 41-93	1910	Vancouver, B.C.		17,000	17,000	63 9	16 9	9 6	24 tons	Soft coal	1½ tons.
Petrel	121,974	G 134, N 58	1906	Victoria, B.C.	Victoria Mach'y Depot	35,000	24,000	86 4	19 0	12 0	120 bbls	Soft coal	12 bbls.
Le Pas		G 23-21, R 15-81	1913	Sedark	P. W. D.	6,000	6,000	54 0	12 0	5 0	14 cords	Wood	1½ cords.

SESSIONAL PAPER No. 19

	<i>To Marine and Fisheries</i>								
Hedra									
Vaughana	G. 134-04, R. 91-15	Selkirk, Man.	P. W. D.						
Mossy River ..	G. 30-15, R. 29-51	Selkirk, Man.	P. W. D.						
Nakusp?	G. 10-32 ...	1009	Pingston Creek, B.C.						
Adirondack..	<i>Sold</i>								

2 Estella Ann Kearney, Wife of W. H. Kelly. b 57^o O. A. 4 13' 6" O. A. b Rebuilt 1911 at Ottawa, Ont
3 Formerly Dorothy Symons. b 1902 to Engineer on Toronto Harbour
4 Rebuilt 1911 at Ottawa, Ont
5 Formerly Nora
6 Formerly Sir Hector.

Formerly Dorothy Symons.

Trained to Engine

ed to Engineer on Toronto & North York

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DEPARTMENTAL TUGS, 1921—Concluded.

Name	Engines.			Number	Boilers.			Pressure Allowed	CONDENSER.		Number of crew	In attendance on.	
	Type.	Size	I H.P.		Make	Type	Diameter		Length	Size			Type.
Habana	1	Triple expansion	14½", 25" & 41" x 25"	580	Collingwood Ship-bld'g Co.	1	Scotch	13	6	10	6	11	P.W.D. No. 1.
Lisgar	1	Triple expansion	12", 19" & 30" x 20"	400		1	Scotch	10	6	9	6	12	P.W.D. No. 6.
Cunso	1	Triple expansion	12", 19" & 30" x 20"	325	New-Burrell-Johnson I. Co.	1	Scotch	10	3	9	6	11	P.W.D. No. 2.
Frederickton	1	Compound	12" x 26" x 18"		Polson Iron Works.	1	Scotch	10	0	11	0	8	P.W.D. No. 3.
Sagadahoc	1	Compound	14" x 30" x 21"	300	James Ritchie Patrick.	1	Scotch	9	0	9	0	8	P.W.D. No. 13.
Malcolm Reid	1	Compound	10" x 18" x 14"	200	New-Burrell-Johnson I. Co.	1	Vertical	5	7	6	6	3	P.W.D. No. 14.
Reva	1	Compound	10" & 20" x 16"			1	Upright	5	4	10	6	6	P.W.D. No. 11.
Lubean	1	Simple	12" x 12"		Orr & Semblower.	1	Scotch	6	6	7	8	3	P.W.D. No. 102.
Alva	1	Compound	9½" & 17" x 12"		Low Bros	1	Fitzgibbon	94	7	8	1	3	P.W.D. No. 103.
Munro	1	Simple	12" x 12"			1	Scotch	6	0	9	0	3	P.W.D. No. 106.
Aylmer	2	Simple	6" x 7"			1	Fitzgibbon	11	6	6	0	3	P.W.D. No. 108.
Hercules	1	Triple expansion	14½", 22" & 36" x 21"		Polson Iron Works	1	Scotch	12	6	10	6	9	P.W.D. No. 109.
Archie Stewart	1	Simple	21" x 18"		J. & R. Weir.	1	Square Fire Box.	7	6	12	6	6	P.W.D. No. 123
Marie Louise	2	Simple	8" x 9"		F. X. Drolet.	1	Horizontal.	4	0	4	0	3	P.W.D. No. 111
Maggie K.	1	Simple	12" x 12"			1	Return Tubular.	13	5	7	5	3	P.W.D. No. 112.
Cliffside	1	Simple	15" x 15"		J. & R. Weir	1	Fitzgibbon	11		9	3½	3	P.W.D. No. 113.
St. Paul	1	Compound	12" & 24" x 18"		Knight & Gibson	1		15		12	0	3	P.W.D. No. 114.
Monitor	1	3 Cyl. Simple.	12" x 18"		J. & R. Weir.	1	Scotch	8	6	9	7	7	P.D.W. No. 115.
Stott's King	1	Compound	16" & 32" x 24"		F. X. Drolet.	1	Scotch	11	6	8	4	9	P.W.D. No. 115.
Pool	1	Triple expansion	12", 19" & 30" x 20"		McKie & Baxter	1	Scotch	9	6	11	11	8	P.W.D. No. 117.
Dora	1	Simple	10" x 12"			1	Tug	4	1	18	0	3	P.W.D. No. 118.
Blanche	1	Simple	10" x 12"			1	Fitzgibbon	24	0	6	6	3	
Daisy	1	Simple	9" x 10"			1	Fitzgibbon	26	6	12	0	3	
Delisle	1	Simple	18" x 20"		Roll Steam Engine Works.	1	Tug	26	6	12	0	4	
J. G. Wetherbee	1	Compound	18" & 34" x 30"			1	Tug	229	0	13	0	9	
Parkdale	1	Simple	9" x 9"		Doty.	1	Scotch	5	0	7	0	5	P.W.D. No. 202.
Peguis	1	Simple	12" x 12"		Doty	1	Scotch	6	0	7	0	5	P.W.D. No. 204.
Irishay	1	Simple	12" x 14"		Doty	1	Scotch	6	0	7	0	5	P.W.D. No. 205.
Carbary	2	Simple	10" x 10"		Doty	1	Scotch	7	0	9	0	4	
Point Fillice	1	Compound	16" & 34" x 24"	450	Ross & Duncan	1	Scotch	12	0	11	0	8	P.W.D. No. 301.
Point Garry	1	Imperial	3-8" x 10½"		Imperial.	1						2	P.W.D. No. 305.
Point Grey	1	Compound	17" & 40" x 27"	550	Campbell & Calderwood.	1	Scotch	14	0	12	3	9	P.W.D. No. 306.
Point Hope	1	Compound	9½" & 20" x 14"	135	John Doty.	1	Scotch	7	8	10	7	4	P.W.D. No. 307.
Petrol	1	Compound	11" & 24" x 16"	250	Victoria Mach'y Dep.	1	Scotch	9	6	10	10	7	General Service Victoria, B.C.

SESSIONAL PAPER No. 19

La Paz Nakusp	1 High Pressure 1 High Pressure	9' x 9" 8' x 8"	Doty Return Tubular Davidson	1 Scotch 1 Cylindrical 1 Scotch	5 0 7 0 4 6 5 8 1/2 9 0 11 0	150	3' 8" D x 70" P 6' D x 9' P 11' D x 78" P	4 P W D No 208 4 Supplying drudge lock work 4 P W D No 210
Yauzhan	1 Compound	11' x 22' x 15"					Jet	
Mossy River	1 Simple	9' x 9"		1 Scotch	5 0 7 0			
<hr/>								
1 Cooling surface 800 sq ft	1 300 1/2" tubes	589 tubes 7' long x 2" dia	1 571 tubes	172 tubes	1 Heater	1 Wide x 7' H.	1 4' W x 6' H	1 9' 10" high
1 4' 7" W x 7' 4" H	1 4' 9" W x 8' 1 1/2" H	1 6' W x 7' H	1 427 1/2" tubes, 698 1/2 sq ft cooling surface	1 6' 0" H	1 6' 0" H	1 8' Wide x 8' 6" H	1 19' Wide x 8' 6" H	1 9' Wide, 6' H
1 8' Wide 9' H.	1 Wide x 11' H Dome 5' 2 1/2"	1 485 sq ft cooling surface	1 485 sq ft cooling surface	1 4 Cycle Gasoline Engine	1 4 Cycle Gasoline Engine	1 800 sq ft cooling surface	1 9' 260 sq ft, cooling	1 9' 260 sq ft, cooling

DEPARTMENTAL GASOLINE TENDERS, 1921.

Name	Official Registry Number.	Registered Tonnage	When Built	Where Built	Builder	Cost, Equipped	Present estimated Value.	HULL					Average Speed.
								Material.	Length O.A.	Beam Amidship.	Depth.	Working Draft.	
Trent			1914			\$ 350	\$	Wood	22	8		2 6	
Rumalbert						1,000		Wood	35	8			
Klackaboot			1914	New Westminster, B.C.	Westminster Marine Ry's	5,870	5,300	Wood	40	11	5 6	4 6	9 1/2 M.p.h.
Roustaubert			1913	Vancouver, B.C.	W. Menchions	5,500	4,500	Wood	40	12	5 6	4 6	8 M.p.h.
			1911	Vancouver, B.C.	Vancouver Shipyards, Ltd	2,900	1,900	Wood	31	9	3 6	4 0	8 1/2 M.p.h.
Sturdee			1914			1,500		Wood	42	9		3 6	

Name	Engines					Propellers.		Fuel.			Remarks.
	Number	Size	Type	Make	I. H. P.	Number	Size	Capacity.	Kind.	Average consumption per day, 10 hr.	
Trent	1	(2) 9.	Gasoline	Praser Heavy Duty	18	1	21"	80 gal.	Gasoline.	6 gal.	*Purchased 1915 from Humphrey
Rumalbert	1	(3) 8 x 10	Gasoline	San Francisco Standard.	40		40" D x 36" P.	150 gal.	No. 1 distillate	35 gal.	13 cyl., 4 cycle.
Klackaboot	1	.....	Gasoline	Colts	35	1	38" D x 40" P.	450 gal.	No. 1 distillate	35 gal.	13 cyl.
Roustaubert	1	(6) 7 1/2	Gasoline	Buffalo "Heavy Duty".	24	1	29" D x 46" P.	90 gal.	No. 1 distillate	22 1/2 gal.	14 cyl. 2 B.H.P.
	1		Gasoline	Praser.	8	1	21"	15 gal.	Gasoline.	2 gal.	With dredge P.W. D. No 2.
Sturdee	2			Acadia gas engines	8						With dredge P.W. D. No. 15.

SESSIONAL PAPER No. 19

DEPARTMENTAL LAUNCHES, 1921.

When Built	Where Built	Built by	Cost	Present Value	HULL				ENGINE.	Fuel.	In connection with.	Remarks
					Material	Length	Beam	Depth				
1907	Danzig, Germany	Shuchan & Co		\$	320 Wood	18 6	6 6	2 6	Yale, 4 Cycle	Gasoline	P. W. D. No. 301	
1912	North Vancouver, B. C.	A. Linton	418		360 Wood	18 6	6 0	1 11	Ferro, 2 Cycle	Gasoline	P. W. D. No. 303	
1911	Vancouver, B. C.	Vancouver Shipyard, Ltd	150		225 Wood	18 6	6 6	2 6	Grey, 2 Cycle	Gasoline	P. W. D. No. 307	
1914	Vancouver, B. C.	A. M. Daboe	335		300 Wood	20 0	6 0	2 4	Canille Perfection, 2 Cycle	Gasoline	Divers, B. C.	
1907	Danzig	Shuchan & Co	454		050 Wood	18 8	5 0	2 6	Canille Perfection, 2 Cycle	Gasoline	P. W. D. No. 3	2 Cyl., 2 Cycle
1913			300		Wood	22 8	7 4	3 0	Canille Perfection, 2 Cycle	Gasoline	P. W. D. No. 3	
1907	Saskatoon, Man.	P. W. D.	1,200		800 Wood	31 0	7 0	3 0	Buttalo, 4 Cycle, 1 cylinder	Distillate with Dredges		2nd hand.
1907	Midland, Ont.		500		400 Wood	22 0	8 0	2 6	Dehance, 4 cyl., 4 cycle	Gasoline	Survey plant.	
1913	Pennington, Ont.	Gidley Allen Boat Co	280		400 Wood	18 0	5 0	3 0	Ferro, 2 cycle, 2 cylinders	Gasoline	Survey	
1905	Chicoutimi	P. W. D.	800		350 Wood	27 0	8 0	4 0	Canille Perfection, 2 Cycle	Gasoline	Steam Derrick	*Rebuilt 1912
1914	Kinross, Ont.	Davey Drydock Co., Ltd	1,950		1,950 Wood	37 0	7 3	4 2	Sterling, 2 cyl. 5 1/2" x 7"	Gasoline	Harrimanw River improvements	tail. Katherine,

DEPARTMENTAL HOPPER SCOWS, 1921

Port of origin	When Built	Where Built	Builder	Cost each	Present estimated value each	Material of construction	Length	Breadth	Depth	Draft
				\$	\$		"	"	"	"
No 101 and 102	1907	Collingwood, Ont	Collingwood Shipbuilding Co	28,000	22,000	Steel	140 0	32 0	11 0	4 0
No 103 and 104	1907	Toronto, Ont	Polson Iron Works	28,000	22,000	Steel	146 0	32 6	11 6	4 0
No 105 and 106	1906	New Glasgow, N S	J Matlason & Co	11,000	7,000	Steel	106 0	23 0	8 7	4 0
No 107	1906	Pictou, N S	Pictou Foundry and Machine Co	10,000	7,000	Steel	107 0	24 0	8 0	3 0
No 108 and 109	1907	St John, N B	Jas Fleming	11,000	6,000	Iron and steel	111 8	23 9	7 9	3 2
No 110 and 111					2,000	Wood	72 6	19 8	7 0	3 0
No 112, 113 and 114, Lost	1897	Point Levis, P Q	Carrier Lane Co	11,000	5,000	Steel	107 0	22 6	8 0	4 0
No 115 and 116, Lost	1906	Yarmouth, N S	The New Burrill Johnson Iron Co	11,000	7,000	Steel	104 0	22 0	8 0	4 0
No 117 and 118	1906	St John, N B	Jas Fleming & Son	11,000	5,000	Steel	110 0	25 0	8 0	3 0
No 119	1912	New Glasgow, N S	Brown MacLane Co	11,000	11,000	Steel	77 0	28 0	8 3	3 4
No 120, 121, 122 and 123	1913	Ottawa	P W D	10,700	10,700	Wood	72 0	22 0	7 0	3 0
No 124	1913	Ottawa	P W D	10,700	10,700	Wood	72 0	22 0	7 0	3 0
No 125 and 126, S L L	1908	Collingwood	Collingwood Shipbuilding Co	24,000	21,000	Steel	144 0	32 6	11 9	3 0
No 127	1907	Collingwood	Collingwood Shipbuilding Co	24,000	21,000	Steel	146 0	32 6	11 6	3 0
No 128 and 129	1914	Roberval	P W D	3,500	3,000	Wood	60 0	16 4	3 6	2 0
No 130 and 131	1905	Sturgeon Falls	Tassier and Smith	3,000	5,000	Wood	70 0	19 4	7 0	2 0
No 132 and 133, S L L	1906	Buckingham, Que	W H Kelly	4,000	3,000	Wood	54 2	14 2	5 3	2 6
No 134 and 135		Ottawa, Ont	P W D		3,000	Wood	61 3	16 1	6 0	
No 136 and 137, S L L	1909	Toronto	Toronto Ship Yard Co	14,000	12,000	Steel	102 0	28 3	9 0	0
No 138 and 139	1903	Temiskaming Station	Charles Morin	2,000	1,800	Wood	58 0	20 10	5 3	0
No 140 and 141	1899	Ottawa	P W D		3,500	Wood	54 5	14 0	5 5	0
No 142 and 143	1912	Grandes Piles, Que	P W D	3,000	3,000	Wood	71 3	19 3	5 7 1/2	0
No 144 and 145	1915	St Jean des Piles	P W D	3,000	3,000	Wood	54 0	20 0	6 0	0
No 146	1912	Levis	Geo T Davie & Sons	14,850	14,850	Steel	54 0	20 0	6 0	0
No 147 and 148		Sorel	P W D		9,000	Wood	104 5	28 0	9 0	0
No 149		Ottawa			72 0	Wood	90 0	25 0	10 0	0
No 150 and 151	1913	Sturgeon Falls	Chas Williams	4,700	4,500	Wood	70 0	19 4	7 0	0
No 152 and 153	1906	St John, N B	J Fleming, Phoenix Foundry	17,000	14,000	Steel	105 10	24 2	8 3	0
No 154 and 155	1911	Selkirk, Man	P W D	4,500	3,000	Wood	80 0	20 0	7 0	0
No 156 and 157	1911	Selkirk, Man	P W D	2,500	1,700	Wood	60 0	16 0	6 0	0
No 158 and 159	1911	Selkirk, Man	P W D	2,500	1,700	Wood	60 0	16 0	6 0	0
No 160 and 161	1910	Winnipegosis, Man	P W D	2,500	1,700	Wood	60 0	16 0	6 0	0
No 162 and 163	1910	Westbourne, Man	P W D	2,700	1,700	Wood	60 0	16 0	6 0	0
No 164 and 165	1906	Westbourne, Man	P W D	3,000	1,600	Wood	60 0	16 0	6 0	0
No 166 and 167	1911	Nelson, B C	Thos Cunningham	5,000	4,000	Wood	74 3	21 0	8 6	0
No 168		Ottawa	P W D			Wood	72 0	19 8	7 0	4

DEPARTMENTAL HOPPER SCOWS, 1921—Concluded.

Departmental Number.	Draft loaded.	Number of Hoppers.	Capacity each Hopper.	Total capacity.	Hoisting arrangement for Hopper Doors.	Used in connection with.	Province where used.	Remarks.
No. 49.....	5 0	4	10-75	43	Centre rollers	P. W. D. No. 122.....	Ont. and Que.	
No. 101 and 102	10 6	8	70	560	Side shafts, hand lever purchase.....	P. D. W. No. 1	Maritime Provinces.....	
No. 103 and 104	10 6	8	70	560	Side shafts, hand lever purchase.....	P. W. D. No. 1	Maritime Provinces.....	
No. 105 and 106	7 0	2	100	193-8	Winch and chain, lever hoist.....	P. W. D. No. 2	Maritime Provinces.....	
No. 107.....	8 0	2	96½	193	Lever.....	P. W. D. No. 3	Maritime Provinces.....	
No. 108 and 109	6 3	2	90½	*181	Ratchet and windlass on each end of scow.....	P. W. D. No. 9	Maritime Provinces.....	*No. 109=186 cu. yds.
No. 110 and 111	6 0	2	50	100	Tubular barrel and chain, bar and ratchet.....	P. W. D. No. 10.....	Maritime Provinces.....	
No. 151	7 5	2	100	200	Fore and aft winch hoist.....	P. W. D. No. 6	Maritime Provinces.....	
No. 153 and 154	6 0	2	91-5	183	Crab winch, with ratchet.....	P. W. D. No. 7	Maritime Provinces.....	1No. 154 was built in 1907.
No. 155.....	8 0	2	100	200	Lever.....	P. W. D. No. 3	Maritime Provinces.....	
No. 156.....	7 2	3	56-78	170-34	Hand hoisting gear.....	P. W. D. No. 13.....	Maritime Provinces.....	
No. 10.....	5 10	2	51	102	Chain and roller.....	P. W. D. No. 123.....	Ont. and Que.....	
No. 11.....	5 10	2	49½	99	Chain and roller.....	P. W. D. No. 123.....	Ont. and Que.....	
No. 14	11 0	8	68-0	544	Steam winding engine 2-6"x8" Horizontal	P. W. D. No. 109.....	Ont. and Que.....	
No. 15	11 0	8	68-0	551-3	Steam winding engine 2-6"x8" Horizontal	P. W. D. No. 109.....	Ont. and Que.....	
No. 18 and 19	5 0	2	32½	65	Chain and wooden roller.....	P. W. D. No. 111.....	Ont. and Que.....	
No. 20 and 21	7 0	2	50	100	Chain and roller.....	P. W. D. No. 112.....	Ont. and Que.....	
No. 24 and 25	4 3	2	15	30	Iron rollers worked by hand.....	P. W. D. No. 102.....	Ont. and Que.....	
No. 26 and 27	5 6	2	33	*66	Wooden roller and chain.....	P. W. D. No. 103.....	Ont. and Que.....	*Scow No. 27 = 65 yds.
No. 38 and 39	8 6	5	62½	314	Chain and roller.....	P. W. D. No. 117.....	Ont. and Que.....	
No. 40 and 41	4 0	2	18½	37	Steel roller.....	P. W. D. No. 118.....	Ont. and Que.....	
No. 42 and 43	5 0	4	7½	29	Eccentric dumper, centre rollers.....	P. W. D. No. 119.....	Ont. and Que.....	
No. 44 and 45	*5 8	2	*47	95	Hand, centre rollers.....	P. W. D. No. 120.....	Ont. and Que.....	
No. 48.....	5 0	4	10-75	43	Centre rollers	P. W. D. No. 122.....	Ont. and Que.....	
No. 50.....	8 6	6	76-3	458	Chain, hand winding.....	P. W. D. No. 117.....	Ont. and Que.....	
No. 53 and 54 * (53=309 cu. yd)	7 10	5	61-00	318	Chain on roller, side shaft	P. W. D. No. 123.....	Ont. and Que.....	
No. 16	9 0	6	41-66	250	Wire on roller.....	*	Ont. and Que.....	
No. 17.....	8 6	2	51	102	Wire on roller.....	P. W. D. No. 116.....	Ont. and Que.....	
No. 115 and 116.....	7 9	2	100	200	Hand winding.....	P. W. D. No. 112.....	Ont. and Que.....	
No. 201 and 202	6 10	2	50	100	Rollers.....	P. W. D. No. 4	Ont. and Que.....	
No. 203 and 204	5 0	2	30	60	Rollers.....	P. W. D. No. 205.....	Man., Sask., Alta.....	
No. 205 and 206.....	5 0	2	30	60	Rollers.....	P. W. D. No. 204.....	Man., Sask., Alta.....	
No. 209 and 210.....	5 0	2	30	60	Rollers.....	P. W. D. No. 202.....	Man., Sask., Alta.....	
No. 311.....	5 0	2	30	60	Rollers.....	P. W. D. No. 210.....	Man., Sask., Alta.....	
No. 303 and 304	8 0	3	45	135	Ratchet and cable.....	.....	Man., Sask., Alta.....	
No. 305 and 306	7 6	4	55	*220	Hand, pawl and ratchet.....	P. W. D. No. 302.....	B.C.....	*304 = 219 yds.
No. 31	10 0	5	63-6	318	Chain, wire, shaft, hand hoist.....	P. W. D. No. 307.....	B.C.....	305 = 298 yds.
No. 30.....	4 0	2	49	98	Centre rollers.....	P. W. D. No. 301.....	B.C.....	
No. 100.....	5 0	2	49	98	Centre rollers.....	P. W. D. No. 103.....	Ont. and Que.....	
No. 307.....	5 0	2	50½	101	Centre rollers.....	P. W. D. No. 123.....	Ont. and Que.....	
No. 307.....	8 6	5	55-2	276	Cog hand gear for air or steam.....	P. W. D. No. 106.....	Ont. and Que.....	
No. 307.....						P. W. D. No. 313.....	B.C.....	

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No. 308, 309 and 310	10	0	5	52	260	Worm gear operated by air	P. W. D. No. 306	B. C.
No. 46 and 47	5	10	2	30	60	Side dump	P. W. D. No. 121	Ont. and Que.
No. 207 and 208	6	0	2	30	60	Rollers	P. W. D. No. 208	Man.
No. 158 and 159	12	0	2	51	102	Side shafts	P. W. D. No. 11	Maritime Provinces
No. 117 and 118	9	0	8	63	505	Side shafts	P. W. D. No. 1	Maritime Provinces
No. 51, 52, 55 and 56	9	0	5	61	318	Side shafts (56=309 cu. yd.)	P. W. D. No. 110	Ont. and Que.
No. 1	9	0	6	41-66	250	Wire on roller	*	Ont. and Que.
No. 119	6	0	2	50	100	Centre rollers	P. W. D. No. 10	Maritime Provinces
No. 120 and 121	4	6	1	40	40	Centre rollers	P. W. D. No. 14	Maritime Provinces
No. 3 and 4	5	0	4	12½	50	Centre rollers	Steam Derrick	Chicoutimi
No. 122 and 123	5	0	2	12½	25	Centre rollers	P. W. D. No. 15	Nova Scotia

No. 55 not included with
Dredge No. 110.
•Not used, at Ottawa.

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No. 530....	1917	Nakusp, B.C.....	D. T. Bulger.....	240	240	Wood.....	3	3	3	24 0	12 0	4 0	0 6	2 6	P.W.D. No. 311	Coal scow, 25 tons cap.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	110 6	32 6	8 0	.....	.....	P.W.D. No. 116	Coal scow.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	110 0	28 5	10 0	.....	.....	P.W.D. No. 1 Q	Coal scow.
No. 522...	1913	North Vancouver.....	Wallace Shipyards Ltd., and Standard Iron Works.	5,600	4,800	Wood.....	6	4	3	66 9	21 0	5	0 10	5 0	P.W.D. No. 306	Oil fuel scow. Cap'y 500 bbls
No. 551 Spoonbill	1912	Penticton, B.C.....	P. W. D.....	1,000	1,120	Wood.....	3	3	2	40 0	20 0	3 10	0 10	1 4	P.W.D. No. 304	Bunk scow.
No. 552 Mallard.	1914	Chase, B.C.....	P. W. D.....	1,762	1,762	Wood.....	3	3	2	50 0	18 0	4 0	0 10	1 2	Kaspidor.....	Bunk scow.
No. 553...	1913	North Vancouver...	Wallace Shipyards, Ltd.....	2,800	2,400	Wood.....	5	3	2	60 0	23 0	5 3	.....	.....	P.W.D. No. 306	Bunk scow, number of bunks 22.
No. 554....	1912	North Vancouver...	Wallace Shipyards, Ltd.....	2,500	2,200	Wood.....	6	3	3	61 0	20 9	5 8	.....	.....	P.W.D. No. 301	Bunk scow, number of bunks 24.
No. 523..	1913	Victoria.....	Victoria Machinery Depot.....	177	140	Wood.....	.....	.....	.....	18 6	10 0	2 6	.....	.....	P.W.D. No. 306	Diver's outfit cost \$850.
No. 524....	.....	.....	.....	.....	.....	Wood.....	4	3	3	59 6	20 6	2 9	1 9	.....	P.W.D. No. 306	Carpenter's Shop.
No. 555...	1912	North Vancouver.....	Wallace Shipyards, Ltd.....	2,500	2,200	Wood.....	4	3	3	53 8	20 8	6 6	.....	.....	P.W.D. No. 307	Bunk scow, number of bunks 12.
No. 525....	1914	Sault Ste. Marie	P. W. D.....	1,063	1,000	B.C. Fir..	6	3	3	80 0	20 0	3 0	0 6	.....	Surveys & Sweepings.	
No. 556....	1914	Sault Ste. Marie	P. W. D.....	1,063	1,600	B.C. Fir..	6	3	3	80 0	20 0	3 6	0 6	.....		Bunk house.
No. 526...	1914	Sault Ste. Marie.....	P. W. D.....	1,663	1,600	B.C. Fir..	6	3	3	80 0	20 0	3 6	0 6	.....	
No. 527....	1914	Sault Ste. Marie.....	P. W. D.....	1,663	1,600	B.C. Fir..	6	3	3	80 0	20 0	3 6	0 6	.....	

• Long \$300 each. Short \$200 each.
• Long \$235 each. Short \$155 each.

DEPARTMENTAL SWEEPING SCOWS.

No.	When built.	Where built.	Builder.	Where used	Cost.	Present estimated value.	Material of construction.	HULL.			Maximum sweeping depth.	Machinery operated by.
								Length.	Beam.	Depth.		
1	1908	Ottawa	P. W. D.	Georgian Bay, Ont.	\$8,000	\$8,000	Wood	62 8	27 3	6 10	17 0	By steam
2	1911	Ottawa	P. W. D.	Ottawa and St. Lawrence rivers.	3,713 11	3,500	Wood	35 0	18 0	3 6	20 0	By hand.
3	1914	St. John, N.B.	P. W. D.	St. John Harbour, N.B.	2,464	3,500	Wood	30 0	13 0	3 6	60 0	By hand.

Water scow belonging P.W.D. No. 13 lost in July 1920, File 176-3, July 12, 1920.

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DEPARTMENTAL INSPECTION BOATS NOT UNDER THE CONTROL OF THE DREDGING BRANCH.

Name.	Official Registry No.	Registered Tonnage.	When built.	Where built.	Builder	Cost equipped.	Present Estimated Value.	Hull.				Average Speed	Engines.					
								Material.	Length O.A.	Beam Amidship.	Depth.		Working Draft.	Number.	Size.	Type.	Make.	I.H.P.
Eugene.			1915	Brockville, Ont.	Harold F. Hodson.	3,790	\$	Wood	35 0									
D.P.W.			1913	Dartmouth, N.S.	E. F. Williams.	5,750		Wood	46 0		4 1	5 0			Gasoline			
Margaret			1914		The Midland Coal Dock Co.			Steel frame										
					The Georgian Bay Ship-bldg. Co.													
Eleanor.			1911		Wm. Carson	15,650		Wooden planks.	83 0		11 0	8 2	10 miles p.h.		Marine		160 h.p.	
Kegashka			1914	Douglastown, N.B.	Geo. Henderson.	3,617		Wood	48 0		9 6	4 6			Gasoline		55-60 h.p.	
Marie Louise			1911		Dept. of Public Works	9,000		Wood	71 0		8 0	7 0			Gasoline			
Jeannette.			1912		Simard & Parad.	2,500		Wood	37 0		8 0	1 0			Gasoline			
					Chantier Maritime de Saint-Laurent.	3,500		Wood	29 0		5 0	5 0			Gasoline			
Montmorency.				Sorel, Que.	Mr. Beauchemin.	20,000		Wood	66 0		5 8	6 0					21 3 h.p.	
Florence.				Brockville.	St. Lawrence Engine Co. Ltd.	1,300		Wood	29 6			2 6			Gasoline			
Lillian			1905	(Has since been destroyed).	Capt. Geo. Bussey—day's labour.	500		Wood	26 8		32 0	2 0			2 cylinder.		10 h.p.	
Daphne.			1912		Jos. Hobbs.	2,000		Wood	41 0		6 6	2 6			Gasoline			
Cingalee.			1905		Capt. Geo. Bussey—day's labour.	6,500		Wood	78 0		5 0	7 0			Doty eng.		10-6 h.p.	
Nokomis.						4,000		Wood	36 0		5 0	4 0			Gasoline			
Meteor.			1913	Victoria, B.C.	Point Ellice Boat Co.	600		Wood	25 0		5 6	2 10			Gasoline			
Lilvyne.			1911	Nelson, B.C.	Thos. Cunningham.	1,700	1200	Wood	27 6	4'2"	3 6	2 3	14 miles p.h.		3 cyl. 1.4½x5"	Gasoline	1	30 h.p. cycle.
Leila.			1914	Prince Rupert.	Dept. of Public Works.	3,532		Wood	41 0		5 4	3 7			Gasoline		25 h.p.	
Thelma			1910	Penetanguishene, Ont.	N. E. Gidley.	2,100		Wood	35 0		3 10	2 8			Gasoline			
Senawa Nabee.			1911		Fred. S. Heans	8,000		Wood	52 0		6 0	4 0			Gasoline			
Oswegatchie.						28,000		Wood	71 0		7½	6 0			Coal			

Roberts Engine Co., Sandusky, Ohio.

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DRY DOCKS

CHAMPLAIN DRY DOCK

During the fiscal year, the work consisted more in the rectification of defective works already built than in the construction of new works, and comprised the readjusting and setting to proper grade the feed and return pipe lines of the heating system; an average of 50 per cent of the joints in the granite coping altars, steps and keel slabs were repointed; 1,400 square yards of concrete being defective at the surface were demolished and rebuilt; high spots on the caisson sill were chipped off; 3,000 cubic yards of earth excavation were needed to level up the eastern and western guide piers; on each end of the rolling caisson, the bottom rails were chipped off on the sides to permit easier handling of the caisson; demountable covers were installed over two of the 48-inch Pittsburg gate valves in the rolling caisson, and new spindles were installed on the two valves; on the rolling caisson, 50 feet of the timber bearing strip was renewed; a complete new set of check valves was installed in the non-return valve chamber; a galvanized iron screen was installed at the end of the 16-inch suction pipe; a gate valve was installed in the non-return valve chamber at the end of pipe connecting the non-return valve chamber with the main sump; all the columns supporting the travelling cranes in power-house and pump-house were reinforced; the stoker side frames were reinforced; new bases for the electric capstans were built; the sluice gate valves numbers 3, 4, and 5 were adjusted and made watertight; the tile work in power-house and pump-house was repaired; a small brick building was built over the rolling caisson hauling machinery; a passageway was built in the generator room of power-house underneath the flooring, and the main arches of boilers numbers 5, 6, 7 and 8 were rebuilt.

The contractors started work on the renewal of the two feed pumps and of the engines for the condensers.

Expenditure for the fiscal year is \$32,595.64.

ESQUIMALT GRAVING DOCK

During the fiscal year 1920-21, thirty ships were docked for cleaning, painting and repairs, leaving a revenue of \$26,253.30. Besides docking and undocking the above ships the staff has been employed in keeping the dock and plant in good repair so that no delay was caused to ships seeking accommodation.

Although the pumping plant shows signs of age and requires minor repairs from time to time no serious breakdown is anticipated in the near future.

The chief engineer's residence needs renewal and the long shed is in need of repair, all other buildings being in good condition.

The derrick used by contractors for landing material over the dock gate is not a particularly satisfactory procedure as it involves the possibility of damage to the dock gate at some time.

Macadam surfacing was provided on the westerly side of the dock to the engine-room, and this work was carried out by arrangement with the Esquimalt municipality at a cost of \$771.14.

The amount expended during the fiscal year ending March 31, 1921, was \$21,994.74.

HAILEYBURY DOCKYARD

P.W.D. dump scow No. 40, which was loaned, in 1918, to the Ontario Department of Public Works and returned to dockyard in October, 1919, was blocked up (April 21-22) for an indefinite period.

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During the month of June, a 52-inch Page fence, with two 12-foot and one 3-foot gates, was erected between roadway and dockyard property and the three rope-houses at large shipways were covered with tarred felt roofing.

The service dock was damaged by ice moving on Lake Timiskaming last April, nine piles being broken. In view of existing conditions as to public works on the lake, it was found unnecessary to restore this wharf to its former dimensions. The damaged portion was partially demolished October 22—November 5, five broken piles being removed, and the building of a new landing face was started in driving one corner pile and placing round timber waling at east end. Part of the dredging plant, viz., dredge bucket, dipper arm, spud shoes, chains, etc., was removed from dock and stored in yard. Work completed March 14-18 consisted of removing the remaining broken piles and placing four short fenders, 10 by 10 by 5 feet.

The departmental construction and dredging plant was accommodated here, as in the past.

BRIDGES AND ROADS

OTTAWA-HULL, UNION BRIDGE

Work on contract, dated April 30, 1919, was resumed by the Dominion Bridge Company, Limited, April 26, 1920, but, due to labour troubles, active construction was delayed one month. The sidewalk extending along the downstream side of bridge and approaches was completed July 2 and the painting of the structure finished August 11.

A concrete retaining wall and piers supporting sidewalk of the Ottawa approach, catch basins and anchorage of the brackets in rear of masonry wall of Hull approach, together with alterations to connect up the existing sidewalks to the new sidewalk and some temporary grading on the approaches, were done by the contractors at an extra cost of \$1,813.40.

An amount of \$277.10 was allowed as extra for stiffening the upstream roadway fence on bridge and filling the space between the curb and fence by means of a 5 by 5-inch continuous angle.

The sum of \$200 extra was paid the contractors for raising and straightening the pipe railing on the Hull approach and to place two panels pipe railing on the Ontario side, attached to the batter post in the same manner as on the Quebec side.

A contract plan and specification were prepared in connection with proposed improvements to roadway approaches and for concrete revetment of old masonry back of the Hull abutment. Tenders were called, but the department, after having this matter under consideration, decided to postpone the improvements until next season.

Some 16,000 stone paving blocks, which had been removed from the bridge approaches by the Ottawa Electric Company when shifting tracks in the fall of 1919, and stored temporarily at the company's power-house, had to be removed by the department, in October, at a cost of \$101.20, and were stored on departmental property.

The old Union Bridge metal, 374,000 pounds, was sold to the highest bidders, Messrs. Baker & Betcherman, at \$30.25 per gross ton, the proceeds of the sale amounting to \$5,050.67.

Two 600-candlepower series lamps on low tension wires were installed on the new bridge by the Marchand Electrical Company, whose tender of \$585 for this work was the lowest. The Ottawa Hydro-Electric Commission furnish the current free, and installed a special transformer in order to connect these lamps to the city lighting system.

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In November, one of the lamps on the Hull causeway was moved north of the bridge, to better light the northbound vehicular traffic at point of crossing the Ottawa Electric Railway Company's tracks.

Expenditure during the fiscal year, \$24,320.53.

ONTARIO AND QUEBEC

North Timiskaming

A contract was awarded May 20, 1919, to the Hamilton Bridge Works Company, Limited, for the erection of traffic bridge across the Quinze river, consisting of two through truss spans, each 238 feet 1 $\frac{3}{4}$ inches long, and two deck spans, each 75 feet long, with concrete roadway 17 feet 2 $\frac{1}{2}$ inches wide.

Work had to be discontinued during the winter months, and was resumed May 19. The concrete flooring, as well as the painting of bridge, was completed by the Hamilton Bridge Works Company, Limited. Railings on approach roadways were built and the approaches were graded with road metal, at a cost of \$828.45. The bridge was opened to traffic July 10.

Expenditure during the fiscal year, \$14,098.45.

ALBERTA

Banff Bridge

A new bridge 420 feet long, 56 wide and 82 feet above water-level, consisting of four spans 88 $\frac{1}{2}$ feet each and two approaches, was placed under contract. The sub-structure, approach spans, roadways, sidewalks, fences, etc., to be built by the Fegles Construction Company, Limited, for the sum of \$169,900, and the structural steel to be supplied by the Dominion Bridge Company, Limited, for the sum of \$73,886.

Work done during the fiscal year amounted to \$51,183.59.

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OTTAWA RIVER STORAGE

At Quinze dam, the concrete at the upstream ends of the piers had been eroded from a few inches to nearly three feet in depth. Semi-circular steel plates were delivered in 1919, but it was not possible to place them until August and September. A coffer dam had to be built at each of the eighteen piers; rich concrete, made of materials washed in caustic soda, was inserted between the steel plates and the piers making a very thorough job. The stop-log recesses were repaired the previous autumn and it only remains now to place steel plates just downstream from the log checks. From time to time, improvements were made to the five miles of road leading to the dam.

Timiskaming dam was examined for scour below the Quebec sluices, at end of March, 1920; the soundings were made with an old spud off the log lifter, the steel I-beam was 9 by 9 inches and 40 feet long. There was no evidence of scour and it seems as though the trouble has been overcome in both the Quebec and Ontario channels. The levels taken in April, 1920, showed that piers numbers 1 and 2, Quebec channel (where break occurred in 1914) have settled 0.07 feet during the year; the total settlement of number 1 pier has been 2.1 feet and of number 2 pier 1.4 feet.

During the spring of 1920, floating ice affected the dam for the first time and carried away the western entrance boom, breaking off 70 feet; the whole boom was 400 feet long and 4 feet wide consisting of 12 by 12-inch Douglas fir timbers bolted together. The broken part of the boom was recovered at Beauchesne and brought back by rail to Timiskaming in March, 1921; since then it has been reframed and placed in its former position leading to the log pass.

The supply to the reservoir in 1920 came in the springtime only, there being no autumn rise. This, combined with the fact that the Quinze sluices were undergoing repairs, and little storage could be held, caused a shortage at the Chaudiere mills; there was only 15,000 c.f.s. in October, 17,000 c.f.s. in November and 14,000 c.f.s. in February, but even this was practically double the extreme low flow before the reservoirs were built. Another factor diminishing storage is that since the war labour has been scarce and a heavy flow to flush the log drive through has been demanded. There being no dam below Timiskaming, levels cannot be maintained without large expenditure of water; thus a decrease from 16,000 c.f.s. to 13,200 c.f.s. at Timiskaming lowers the water nearly $1\frac{1}{2}$ feet at points 80 miles farther downstream. Regulations will eventually be required to govern log driving and 15,000 c.f.s. below Timiskaming might be considered as a normal flow. Generally, much more is available during July and August.

The following tables indicate that there should not be a greater flow from Timiskaming than 15,000 c.f.s. and 7,000 c.f.s. from Quinze unless overflow is threatened.

MEAN C.F.S. QUINZE BY MONTHS 1909-20.

Year.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
1909.....			37,900	15,000	12,500	11,200	11,500	11,600	9,200	6,600	4,700	4,000
1910.....	19,000	24,400	17,800	9,300	6,900	8,400	15,700	14,400	9,000	6,700	4,100	3,000
1911.....	5,000	35,700	22,000	9,200	6,800	5,100	4,500	9,800	10,100	7,800	5,300	3,600
1912.....	6,000	31,200	34,400	18,600	8,900	7,800	10,400	11,400	8,900	6,300	4,900	4,100
1913.....	13,000	36,500	20,900	9,600	6,500	6,000	8,400	14,600	15,000	8,400	5,600	4,000
1914.....	4,100	20,900	16,300	7,800	3,700	2,500	2,500	3,400	4,600	4,300	3,500	2,800
1915.....	6,000	23,400	21,900	12,600	12,600	5,200	9,100	8,700	9,000	7,100	6,100	5,100
1916.....	11,400	46,800	30,200	14,900	6,200	4,300	4,500	11,400	10,000	10,000	8,200	4,500
1917.....	5,800	32,400	36,000	25,300	17,200	13,500	9,400	10,900	9,200	5,100	3,700	3,200
1918.....	7,500	29,100	25,300	17,200	9,500	8,100	10,300	15,000	15,300	13,000	12,200	5,700
1919.....	14,300	32,200	34,300	16,100	7,000	11,000	14,400	14,700	15,600	15,700	8,900	6,000
1920.....	15,800	25,000	18,300	13,800	6,400	4,300	3,300	4,500	4,800	4,700	3,800	3,200
Average ..	9,700	31,300	26,300	14,100	8,700	7,300	8,700	10,900	10,100	7,900	5,900	4,100

NOTE.—Rock fill dam closed February 1914, and dam completed October 1914.

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MEAN C.F.S. TIMISKAMING BY MONTHS 1911-20.

Year.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
1911.....	9,800	61,400	47,900	21,000	13,400	10,300	8,500	14,100	17,400	14,900	11,000	11,600
1912.....	12,700	53,400	54,700	29,300	17,900	12,300	15,000	17,100	14,800	16,100	17,500	13,300
1913.....	15,700	57,100	30,500	18,000	16,200	13,500	12,000	21,900	29,200	19,000	18,300	15,600
1914.....	13,100	33,600	28,300	17,300	9,700	7,100	5,200	5,400	6,700	7,200	6,600	5,100
1915.....	8,200	27,300	30,400	21,900	16,300	13,100	14,700	15,400	16,600	15,700	14,900	15,200
1916.....	33,600	72,100	40,900	23,300	15,500	10,900	9,500	15,200	14,500	15,300	17,000	15,700
1917.....	16,500	56,300	59,700	40,400	26,200	21,900	17,800	16,700	17,000	15,400	13,700	10,200
1918.....	17,500	41,100	37,200	26,100	19,800	17,900	27,600	39,400	25,200	20,700	22,600	18,400
1919.....	34,900	71,700	49,600	21,100	16,700	18,000	28,500	30,500	29,600	23,700	20,700	16,700
1920.....	29,700	39,700	25,500	21,200	16,000	13,200	9,800	9,400	10,400	9,500	9,500	9,300
Average....	19,200	51,400	40,500	24,000	16,800	13,800	14,900	18,500	18,100	15,800	15,200	12,900

Metering has been carried on during the whole season on the Ottawa and the St. Lawrence rivers and a list is attached recording the locations of sections.

The work on the Ottawa has been chiefly at Vaudreuil to fix the effect upon the St. Lawrence, while on the tributaries, the measurements have been chiefly confined to the Gatineau and to the Rideau; the latter will be valuable when the time comes to examine into flood conditions and design remedial works. The St. Lawrence party made 240 measurements of the main river and 120 of the tributaries between Brockville and Montreal. Data is now available for storage problems on Lake Ontario, for questions concerning the Massena power abstraction, for the damming of the main river and for effects on Montreal harbour.

LIST OF METERINGS MADE IN 1920-21

St. Lawrence river, Brockville, whole river.. .. .	1
“ “ Galops rapids, United States Channel only	6
“ “ Toussin Island, north channel only.. .. .	6
“ “ Point three points, whole river.. .. .	46
“ “ Croil-Delaney Island, Big Sny.. .. .	29
“ “ Tracy Point, south sault.. .. .	22
“ “ Croil Island, Canadian channel.. .. .	39
“ “ Croil Island, United States channel.. .. .	51
“ “ Cornwall Island, Canadian channel.. .. .	4
“ “ Cornwall Island, United States channel.. .. .	4
Massena canal, N.Y.. .. .	34
Grass River, N.Y.. .. .	2
Racquet river, N.Y.. .. .	4
St. Regis river, N.Y.. .. .	3
Several creeks, Aultsville to Cornwall.. .. .	67
Rasin river, Lancaster, Ont.. .. .	2
Sutherland creek, Bainsville, Ont.. .. .	1
Gunn creek, Bainsville, Ont.. .. .	1
Wood creek, Bainsville, Ont.. .. .	1
Beaudette river, Beaudette station.. .. .	2
Dellisle river, Coteau du Lac.. .. .	2
Rouge river, Coteau du Lac.. .. .	2
Chateauguay river, Chateauguay station.. .. .	1
Ottawa river below Chaudiere.. .. .	2
Ottawa river, Besserer's Grove.. .. .	1
Ottawa river, Vaudreuil, lower section.. .. .	29
Ottawa river, Vaudreuil, upper section.. .. .	165
Ottawa river, St. Anne.. .. .	88
Aumond creek, Klock station.. .. .	1
DuMoine river, one mlie up.. .. .	7
Rideau river, Hurdman bridge.. .. .	24
Gatineau river, Alcove, Que.. .. .	89
Peché creek, Wakefield, Que.. .. .	7
Meach lake, Farm Point, Que.. .. .	8
Total.. .. .	780

During the fiscal year, a special report was published covering the work done from April, 1915, to April, 1920, thus bringing the whole work record of both reservoir dams and the meterings into convenient form for analysis.

GOVERNMENT TELEGRAPH SERVICE

D. H. Keeley, General Superintendent

Location of Lines.	Year Con- structed.	Length of Lines.			No. of Offices.	Messages Sent.	
		Miles of Pole Line.	Miles of Wire.	Cables.		1920.	1921.
Newfoundland.....	1883	14	14	.....	2	.....	.....
Nova Scotia.....	1880-1916	824½	950½	30½	164	28,582	34,311
New Brunswick—							
Chatham-Escuminac.....	1885-1919	86½	109½	.....	27	6,107	6,970
Bay of Fundy.....	1880-1916	64½	82½	35	21	5,506	5,525
Quebec—							
Magdalen Islands.....	1880-1910	111½	140	73½	20	4,644	4,232
Anticosti Island.....	1881-1890	251½	251½	65½	9	678	853
North Shore St. Lawrence.....	1881-1915	1,082	1,082	5½	77	58,469	64,012
Chicoutimi District.....	1881-1912	479	479	.....	36	.....	.....
Quarantine System.....	1885-1912	54½	152½	24½	17	11,413	12,552
Quebec County.....	1909-1914	73	97½	.....	9	9,105	10,656
Timiskaming.....	1910-1912	104	104	.....	18	2,015	2,650
Ontario—							
Pelee Island.....	1889-1901	.....	.....	17½	.....	512	497
Saskatchewan—							
Moose Jaw-Willow Bunch.....	1885-1912	179	212	.....	7	.....	.....
Battleford-Ile-Lacrosse.....	1912	288	298	.....	8	28,776	27,089
Qu'Appelle-Onion Lake.....	1883-1913	457	518	.....	12	.....	.....
Alberta—							
Onion Lake-Hudson Hope Loops and Branches.....	1893-1915	863½	1,105	.....	54	70,707	66,874
Athabaska-Fort McMurray and Branches.....	1914-1915	313	313	.....	7	.....	.....
British Columbia—							
Mainland.....	1899-1920	1,604	2,814	13½	333	129,880	147,375
Vancouver Island.....	1896-1914	1,254½	1,501	89½	163	128,060	132,079
Yukon—							
Ashcroft-Dawson-Boundary and Branches.....	1899-1916	2,988	3,308½	.....	249	99,892	120,796
Queen Charlotte Island.....	1913-1914	113	113	.....	15	.....	.....
Total.....	.....	11,205½	13,645	354½	1,245	584,346	636,471

The difference in mileage between that given in the annual report for 1919-20 and 1920-21, is due to "pole mileage" and "wire mileage," having been in some instances confused. To obviate such errors in future the "pole mileage," and "wire mileage," will be, as in this case, given separately.

TELEGRAPH SYSTEMS OF THE DOMINION.

As a matter of general interest, pursuant to the statement submitted last year, the latest figures to hand showing the extent of telegraph lines in operation in the Dominion are as given hereunder:—

Canada.	Length of Lines in Miles.				Length of Conductors in Miles.				No. of Offices.
	Aerial.	Under- ground.	Sub- marine.	Total.	Aerial.	Under- ground.	Sub- marine.	Total.	
1920-21.									
Great NorthWestern Tele- graph Co.....	20,124	10	14	20,148	88,139	338	103	88,580	1,650
Canadian Pacific Tele- graph.....	14,553	50	94	14,697	123,022	1,475	224	124,721	1,519
Government Telegraph Service.....	11,205½	354½	11,559½	13,645	354½	13,999½	1,248
Grand Trunk Pacific Tele- graph.....	2,818	1	1	2,820	13,761	18.25	2.19	13,781.44	148

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REVENUE AND EXPENDITURE.

The revenue and expenditure for each of the Government lines in the several districts hereinbefore mentioned are given in the following table:—

EXPENDITURE, 1920-21

Telegraph and Telephone Lines.	Construc- tion and Improve- ments	Repairs	Staff and Mainten- ance	Total	Revenue
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Cape Ray—Newfoundland.....			250 00	250 00	.....
<i>Maritime Provinces—</i>					
Bay of Fundy lines.....			5,950 63	5,950 63	1,685 64
Cape Breton lines.....	327 50	2,751 26	48,297 14	51,375 90	9,344 77
Chatham-Escuminac line.....			1,936 02	1,936 02	956 92
Prince Edward Island and mainland cable.....			7,186 66	7,186 66	.....
Prince Edward Island, contribution of half cost of reconstruction of telegraph lines jointly owned by the Anglo-American Co. and the Dominion Government.....	4,745 63			4,745 63	.....
<i>Quebec Mainland—</i>					
Dorchester County lines.....			9 37	9 37	5 40
North shore, east of Bersimis.....			37,970 29	37,970 29	15,425 07
North shore, west of Bersimis.....			21,815 58	21,815 58	3,328 92
Quebec county lines.....			5,613 55	5,613 55	1,723 23
Timiskaming lines.....			4,489 07	4,489 07	683 59
<i>Quebec Islands—</i>					
Anticosti system.....			11,010 94	11,010 94	962 16
Cable ship <i>Tyrian</i>			106,843 84	106,843 84	.....
Grosse Isle, Isle aux Coudres and Island of Orleans system.....			9,629 55	9,629 55	832 66
Magdalen Islands system.....			9,018 42	9,018 42	2,458 12
Maritime Provinces and Gulf generally..			5,023 70	5,023 70	.....
Maritime Provinces Generally—Pur- chase of submarine cable to replenish stores.....	5,120 89			5,120 89	.....
<i>Ontario—</i>					
Bath—Amherst Island system.....	637 00			637 00	.....
Pelee Island system.....			4,771 10	4,771 10	84 80
<i>Saskatchewan and Alberta—</i>					
Saskatchewan lines.....		6,548 60	72,629 03	79,177 63	8,651 72
Alberta lines.....		4,680 40	111,310 86	115,991 26	40,063 66
<i>British Columbia and Yukon—</i>					
Ashcroft-Dawson system.....		5,885 34	289,789 97	295,675 31	133,276 58
British Columbia Mainland system..	5,787 50	21,693 55	98,156 75	125,637 80	58,963 36
British Columbia—Vancouver Island system.....		7,190 37	152,776 81	159,967 18	52,023 83
British Columbia—Vancouver Island system—Purchase of submarine cable to replenish store.....	12,379 11			12,379 11	.....
Telegraph Service Generally.....			1,015 62	1,015 62	.....
Totals, Telegraph and Telephone Lines..	28,997 63	48,749 52	1,005,494 90	1,083,242 05	330,470 43

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DEPARTMENTAL TELEPHONE SERVICE.

Up to date of this report (April 1, 1921) the telephone connections with the central office of the Bell Telephone Company at Ottawa, listed as chargeable to the special appropriation, numbered 1,986, the annual charge for which amounts to \$77,127 52. The connections are distributed amongst the several departments, as hereunder.

Department.	Number of Telephones.				Total.	Cost per Annum.
	Office.		Residence.			
	Direct	Extn.	Direct	Extn.		
						\$ cts.
Agriculture.....	41	61	8	3	113	3,186 04
Air Board.....	1	1			2	64 90
Air Board Private Branch Exchange.....	24				24	781 60
Auditor General.....	15	12			27	931 04
Canadian Trade Commission.....	2				2	103 40
Chief Electoral Officer.....	1	1			2	62 70
Civil Service Commission.....	25	13	4	1	43	1,595 00
Conservation Commission.....	6	10	1		17	493 02
Council Sub-Committee Re-Organization and Efficiency	7				7	361 90
Customs.....	26	7	3		36	1,512 94
Dominion Archives.....	4	4	1	1	10	298 10
Exchequer Court.....	2	3			5	140 80
External Affairs.....	13	5	3	2	23	854 70
Finance.....	5	6	2		13	369 94
Finance Private Branch Exchange.....	46				46	2,649 92
Government House.....	7	1	3	4	15	627 00
Government House Private Branch Exchange.....	18				18	2,544 00
Government House Private Line.....						135 30
Health.....	2	2			4	127 60
Health and Statistics Private Branch Exchange.....	31				31	1,766 86
House of Commons.....	2		3	2	7	419 10
House of Commons and Senate Private Branch Exchange	86				86	5,981 91
House of Commons and Senate Private Branch Exchange, Sessional.....	229				229	3,679 01
Immigration and Colonization.....	15	9	1		25	924 00
Indian Affairs.....	12		1		13	656 70
Industrial Research Council.....	2	1			3	119 24
Inland Revenue.....	11	3	1		15	637 34
Interior.....	131	43	3	1	178	7,539 84
Interior Soldiers' Settlement Board.....	17	10			27	1,013 54
Insurance.....			1		1	29 70
Justice.....	21	11	6		38	1,419 00
Labour.....	7	13	3	1	24	636 24
Library of Parliament.....			2	1	3	70 40
Marine and Fisheries.....	1	1	3	1	6	162 80
Marine and Naval Private Branch Exchange.....	101				101	4,088 10
Militia and Defence.....	14	8	3	2	27	936 54
Militia and Defence Private Branch Exchange.....	186				186	7,707 01
Mines.....	26	11	1	1	39	1,539 78
Mines Private Branch Exchange.....	36				36	1,845 13
Naval.....	3		1		4	180 40
North West Territories.....	1	2			3	75 90
Patents.....	6	2	1		9	361 90
Patriotic Fund Committee.....	1	3			4	91 30
Post Office.....	45	9	6	1	61	2,621 30
Printing and Stationery.....	2	1			3	116 60
Printing and Stationery Private Branch Exchange.....	49				49	1,393 48
Privy Council.....	7	2	4		13	490 60
Public Works.....	63	25	5	2	95	3,783 34
Purchasing Commission Private Branch Exchange.....	12				12	1,486 62
Railways and Canals.....	18	7	7		32	1,228 70
Royal Canadian Mounted Police.....	37	15	2	1	55	2,146 10
Secretary of State.....	15	6	2		23	933 24
Senate.....			2	1	3	68 20
Soldiers' Civil Re-Establishment.....	4	1	2	1	8	456 50
Soldiers' Civil Re-Establishment Private Branch Ex- change.....	93				93	2,405 40
Supreme Court.....	1	2	1	1	5	92 40
Trade and Commerce.....	19	9	3	2	33	1,182 50
	1,548	320	89	29	1,986	77,127 52

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NEWFOUNDLAND

The line from Port au Basque to Cape Ray continues to be operated as heretofore under an arrangement with the Anglo-American Telegraph Company.

CAPE BRETON

The various lines comprising the Cape Breton System, consisting of telegraph and telephone circuits have been satisfactorily maintained during the past year. The volume of business shows a marked increase over any of the previous years due largely to active operations in new coal areas as well as to the increased demand for pulp wood. There have been no delays to business due to prostration of lines. Four telegraph offices were closed, eight agents were changed through resignations, four general repairers were changed and six new telephone offices were opened on a rental basis of \$9 per annum.

BAY OF FUNDY

Both telegraph and telephone circuits worked well during the past year. On the many short stretches of cable forming part of this system only four interruptions took place during the year, repairs were effected without delay.

CHATHAM-ESCUMINAC

This line, which was built in 1885, and operated as a telegraph line with six offices on its circuit is now operated as a telephone line with twenty-seven offices.

MAGDALEN ISLANDS

The telephone system now in use remains the same.

The Meat Cove cable has given uninterrupted service throughout the year.

There have been no serious interruptions to the service during the year.

ANTICOSTI

The usual repairs were effected during the year. Although the weather was rather severe as a whole during last season the service given was continuous. The revenue was almost double that of the previous fiscal year.

NORTH SHORE ST. LAWRENCE

These lines received a thorough overhauling under the supervision of the general repairers, over five hundred poles being renewed and two thousand braces put in. The working condition of the lines has been very satisfactory. No new construction or new offices opened.

QUARANTINE LINES

Much trouble was had during the past season with the cables forming part of this system due to ice crushes but repairs were effected in all cases with the least possible delay. In effecting these repairs about two miles of cable was used. Notwithstanding heavy snow and sleet storms the land lines gave good service throughout the year. No changes in location or extensions were made.

QUEBEC COUNTY LINES

A large amount of work was done during the year in repoling these lines with cedar and it is expected that the whole system will be completed during the coming season. The improvement in the service is shown by an increased revenue and an addition of eleven subscribers against three withdrawals.

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TIMISKAMING

Apart from the usual repairs nothing of importance is to be reported in the way of changes on this system. The lines gave good service all the year. No new offices opened or change of location took place.

PELEE ISLAND

The cable connecting Pelee Island to the mainland at Leamington gave good service until the end of November, 1920, when it was broken by a ship's anchor being drawn through. Due to the lateness of the season and the ruling inclement weather repairs were deferred until this year.

SASKATCHEWAN

Notwithstanding the exceptional rain and snowfalls which occurred in the course of the year the lines were maintained in satisfactory working order. There are no changes to report in the personnel or location of offices.

ALBERTA

During the year, severe storms, floods and bush fires caused considerable damage especially between Athabasca and Pelican where a stretch of forty miles had to be practically rebuilt. Temporary repairs were effected as quickly as possible so that no serious delays to business occurred.

During the year, a loop consisting of $3\frac{1}{2}$ miles of pole line and seven miles of wire was constructed from a point on the Pouce Coupe-St. John line to Rolla, B.C., and an office installed at the latter place on a commission basis. Due to the scarcity of labour and the high cost of same as well as of materials only the most necessary repairs were effected.

BRITISH COLUMBIA MAINLAND

Good service was given over this system during the past year. Business has been very satisfactory showing an increase in revenue over the previous year of 24 per cent.

Apart from ordinary repairs and improvements on the various lines forming this system the following new extensions were constructed during the year:—

	Miles
Slocan Junction to Slocan City.. . . .	35
McKnights to Adams lake via Blucher lake.. . . .	23
Merritt to Kingsvale.. . . .	18
Windermere to Fairmont Springs.. . . .	18
Narrow lake to Lush lake.. . . .	4
Okanagan Falls to Mathison wharf with extensions.. . . .	21
	<hr/>
	119

Ninety-four new offices were opened during the year and thirty-four closed—an increase of 60.

VANCOUVER ISLAND

The various lines comprising this system were operated satisfactorily during the past year. On the few occasions when trouble occurred on land lines or cables, repairs were effected with a minimum of delay and expense. Eleven new offices were opened and two closed during the year, making an increase of nine.

YUKON SYSTEM

The operation of the main line during the past year has been satisfactory in every respect. The usual repairs were carried on during the year and lines brought up to the usual good condition.

The following lines were built during the year:—

	Miles
Clinton-Keely lake..	10
Burns lake-Francois lake..	15
	<hr/> 25

The former is the first section of the proposed new line Clinton to William's Lake and the latter the second section of the proposed Burns Lake-Ootsa Lake-Houston line.

CABLE SHIP " TYRIAN "

On April 1, 1920, the cable ship *Tyrian* had on hand 14·30 knots of D.S. cable to which was added during the season the following:—

	Knots
1920	
April 1—On hand..	14·30
12—Picked up at Kent Island..	·60
May 11—Picked up at Long Eddy..	4·45
15—Repaired on board..	·60
Aug. 13—Received from <i>Camino</i>	5·50
Sept. 23—Picked up Bryon Island..	9·16
1921	
Jan. 5—Received from <i>Ariano</i>	3·87
Total..	<hr/> 38 48

which were utilized as follows:—

	Knots
1920	
April 2—Laid Big Wood Island..	1·10
12—Laid Kent Island..	1·53
May 2—Laid Gannet Rock..	2·59
15—Laid Long Eddy..	4·60
15—Condemned..	1·00
18—Laid Eastport, Campobello..	·10
June 6—Laid Scatari Island..	·10
July 7—Laid Tadousac..	·05
10—Laid S. W. Point, Anticosti..	·05
15—Laid St. Paul Island..	·10
30—Laid Seal Island..	8·70
Aug. 27—Laid Petite Passage, N.S..	·42
Sept. 23—Laid Bryon Island..	10·50
23—Reduced to boat cable..	·25
23—Condemned..	·09
	<hr/> 31·18
1921	
March 31—On hand..	<hr/> 7·30

Operations of *SS. Tyrian*, 1920-21

1920	
April 1—Anchored at Seal Cove Grand Manan, repairing Big Wood Island cable.	
2 and 3—Completed the above repair.	
3—Blowing too hard for work, went to North Head.	
4—Sunday.	
5—Went to Gannet Rock and located fault; blowing too hard, went back to Seal Cove for shelter.	
6—Strong wind and heavy sea.	
7—Went out and found sea too heavy for work.	
8, 9 10—Repairing Kent Island—Little Wood Island cable.	
11—Sunday	
12 to 19—Awaiting chance to repair Gannet Rock cable.	
20—Went to St. John, N.B. for coal and provisions.	
21 to 26—At St. John. Got coal and supplies.	
27—Sailed for Gannet Rock.	
28 to May 3—Repairing Gannet Rock cable.	

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Operations of SS. Tyrian, 1920-21—Continued.

- May 4 and 5—Repairing Duck Island cable.
 6—Repairing Chaney's Island cable.
 7—Repairing White Head Island cable.
 8 to 16—Repairing Long Eddy-Herring Bay cable.
 17—Repairing East Port-Campobello cable.
 19—Went to Grand Passage, N.S., and found no trouble there.
 20 to 23—At Halifax. Coaled and provisioned ship.
 24—Went to Prince Edward Island.
 25 to 28—Repairing Caribou-Wood Islands cable.
 29—Went to Cape Tormentine and found no trouble.
 30—Sunday, at Charlottetown.
 31—Went to Pictou Island.
- June 1—Making Survey for cable to Pictou Island.
 2—Removed leaky joints (Factory splices) Caribou-P.E.I.
 3—Went to Pictou, N.S.
 4—In Pictou.
 5—Sailed for Scatari Island. Went in to Louisburg.
 6—Repaired Scatari cable and sailed for Halifax, N.S.
 7—Arrived at Halifax.
 18—Went on Marine Railway.
 21—Came off slip.
 28—Sailed for North Sydney.
 29—Arrived at North Sydney.
- July 3—After coaling and provisioning the ship, sailed for Tadousac, Que.
 4—At sea.
 5—Arrived at Tadousac.
 6 to 8—Repairing Tadousac cable.
 9—Enroute to Fox River, Que.
 10—Repairing South West Point Anticosti cable.
 11 and 12—At Gaspé.
 13—Sailed for repair of St. Paul Island cable.
 14 to 23—Repairing St. Paul Island cable.
 24—Cleared for Halifax, N.S.
 25—Arrived at Halifax.
 26 and 27—At Halifax.
 28—Sailed for Seal Island cable repair.
 29 and 30—Repairing Seal Island cable.
 31—Cleared for Petite Passage and received wireless to go to Halifax to take cable aboard.
- Aug. 1, 2 and 3—Fog bound in Bay of Fundy.
 4—Got into Shelburne, N.S.
 5—Still foggy.
 6—Examined Cape Negro Island cable.
 7 to 11—Fog bound.
 12—Came to Halifax to receive cable.
 13—Took cable from *Camino*.
 14 to 18—Thick fog.
 19—Went to Tancook, N.S.
 20 to 23—Repairing cable to Tancook.
 24—Went to Coffin Island and repaired cable.
 25—Went to Half Moon Island and repaired cable. Went to Hawkes Inlet and made small repair.
 26—Sailed for Petite Passage, N.S.
 28—Repaired Petite Passage cable and sailed for North Sydney, N.S.
 29—At sea.
 30—Arrived at North Sydney, N.S.
- Sept. 1—At North Sydney.
 2—Went to Sydney for coal.
 3—Went to Louisburg and coaled ship.
 4—Went back to North Sydney.
 5—Sunday.
 6—Labour day.
 7 and 8—Taking supplies aboard at North Sydney.
 9—Cleared for Meat Cove, N.S. and repaired Magdalen Island cable.
 10—At Aspy Bay, N.S.
 11—Sailed for Bryon Island repair.
 12—Sunday, at Grosse Isle, M.I.
 13 to 16—Gales of wind; ship at Amherst Island for shelter.
 17—On cable ground.
 18—Gale of wind. Ran to Grindstone for shelter.
 19—Sunday.

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*Operations of SS. Tyrian, 1920-21—Concluded.*Sept.—*Con.*

- 20 to 25—On cable ground and completed repair.
- 26—Sunday, went to Grindstone, M.I.
- 27—Remained at anchor.
- 28—Went to North Sydney, N.S.
- 29—Took in water.
- 30—Thick fog.

Oct.

- 1—Sailed for Halifax, N.S.
- 2—Arrived at Halifax.
- 8—Went out to attend fishing schooner race.
- 11—The same.
- 30—Attended the International fishing schooner race.

Nov.

- 1—Went over the same ground.
- 19 and 25—Repaired Saraguay Club cable N.W. arm.

Dec.

- 14—Went on the Marine Railway.

1921

Jan.

- 5—Took cable from the *Ariano*.

COLLECTION OF REVENUE

By E. T. Smith, Collector of Public Works Revenue

During the year ended March 31, 1921, the revenue accrued was \$26,675.39 less than the previous year, but there was an increase of \$7,491.98 in the amounts collected. The deficit was to a great extent attributable to the leasing of the slides and booms in the Ottawa, St. Maurice and Saguenay districts, from which during the preceding year there had accrued \$67,002.51. From the graving docks, the revenue was \$15,229.44 less than in 1919-20, all of which was in the returns from the Lorne dock at Lévis. There was a slight increase of \$360.33 in the revenue from ferries, but the revenue accrued from rents and sales was \$54,819.47 more than the preceding year, which compensated to a considerable extent for the deficit from other sources. Turning to the collections there is a deficit in slide and boom dues of \$42,260 which is accounted for above, and a falling-off of \$15,229.44 from the graving docks. There was an increase of \$377.67 in fees for ferry licenses, an increase of \$60,048.23 from rents and sales, and a special account being a refund collected through this office of \$4,555.52, showing a net increase of \$7,491.98 as above stated.

The special account of \$4,555.52 was paid by the Laurentide Company, being excess of cost of raising piers at Grand Mere over amount stipulated in Order in Council authorizing same. This amount was determined by a scrutiny of the cost accounts made by the district engineer and myself.

While the department has been divested of the maintenance and operation of the slides and booms in the Ottawa District, the St. Maurice District and Saguenay District, with regard to the first named, under the terms of the lease the lessees are to pay over to the Government at its termination any surplus that remains after the cost of operation and maintenance have been defrayed from the tolls collected, which are regulated as to amount by His Excellency the Governor General in Council.

In the Saguenay District, the Chicoutimi Pulp Company has operated the work for the past two years. As it was found that the actual cost of operation would very greatly exceed any possible revenue, this company was allowed to handle the property, subject to the condition that they keep it in suitable shape for handling the traffic, allowances to be made for wear and tear.

In the Ottawa District, the lease provides that the company shall only levy such tolls from year to year as shall pay for the cost of maintenance, repairs and operation. Consequently there will be no surplus of any kind due to the Government at the expiration of the lease as in the case of the St. Maurice River works. The lease for the Gatineau works provides that the lessees shall pay 90 per cent of any surplus of revenue over cost of maintenance and operation.

With regard to the large increase in the amounts derived from rents and sales, this was largely due to the closing of two transactions, namely, the sale of a lot in New Westminster, on which we received the final payment of purchase money and interest, \$32,000, and another property, in Regina, from which we received \$41,609.08 including interest. As to the former item, the question having been raised by the registrar of titles, New Westminster, as to our rights, and whose opposition to registering our transfer of the property was supported by the legal authorities of the British Columbia Government, a long and searching inquiry extending over the

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greater part of a year was required to establish our position. We were fortunately able to obtain the evidence of some very old inhabitants of New Westminster, which on being presented to the Government at Victoria, B.C., were acknowledged as proving our title beyond a doubt. The labour and time expended and the small outlay incurred in bringing about this result effected a matter of about \$65,000 which would have enured for the benefit of the British Columbia Government had we failed in our efforts. This is one of the many instances of the work which is frequently done in this office where results often show so little paper evidence, but nevertheless they involve patience and continuous investigation. In the other matter the business was not in the slightest degree complicated.

There still remains on the books considerable amounts for slide and boom dues, the greater part of which accrued before July 1, 1889, when the collection of this revenue was transferred to this department, all of which with the exception of a few small items have been reported to the Privy Council and authority asked to have the same written off, but up to the present no decided action has been taken thereon. I would respectfully submit details relative to the several services under their respective heads:—

OTTAWA DISTRICT		
Dues of 1889-90.. .. .		\$6,903 05
" 1890-91.. .. .		28 42
" 1892-93.. .. .		379 80
" 1986-97.. .. .		196 71
" 1903-04.. .. .		637 37
" 1911-12.. .. .		723 63
" 1912-13.. .. .		251 15
" 1913-14.. .. .		25 31
" 1914-15.. .. .		16 17
Outstanding.. .. .		<u>\$9,161 61</u>

The balance of dues outstanding prior to July 1, 1889, when this department took over the collection was \$56,805.65.

Apart from one account of \$28.42 which has been recommended to be written off as above stated, all the dues which accrued in the Ottawa District since I took charge in 1889 has been collected.

THE ST. MAURICE DISTRICT

The amount outstanding previous to my taking charge of this district, namely, \$14,690.73, remains unchanged. On April 1, 1920, there was evidently a balance of \$20,610, being composed of two items in dispute between the lessees of the St. Maurice works and the department. During the last fiscal year, one of these items amounting to \$5,526.65 was paid, leaving a balance of \$15,113.35, which would have been adjusted but for the lack of certain evidence which the department considers should be supplied in such cases. Apart from this item all the dues accrued in the St. Maurice District from the time I took charge in 1892 have been collected and duly accounted for. As the lease provides that at its termination any surplus of revenue over expenditure for maintenance, etc., shall be payable to the department, with the assistance of the district engineer, I carefully examined their books and accounts with regard to expenditure for the year 1920-21, which I found correct, and I also checked over carefully the statements of tolls charged up and collected which had been properly prepared from the returns of the lumbermen and the charges made in accordance with the tariff authorized by His Excellency the Governor General in Council. I might say here that considerable work and some expense is involved in following up this business so that when the time of settlement arrives everything shall be conducive to a satisfactory settlement. It is gratifying to note that the

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number of logs hauled on the river St. Maurice during the season of 1920, was the largest on record, namely, 14,776,769 pieces, on which the tolls amounted to \$99,451.67. The cost of maintenance and upkeep was \$96,821.46, leaving a small surplus to go forward to the credit of the operation of the works by the company, of \$2,630.21.

THE NEWCASTLE DISTRICT

During the last fiscal year the sum of \$346.76 was received, being all the dues accrued during the year. I might say that the business on this river is decreasing so rapidly that in all probability it will come to final termination in the space of a very few years. The reason for retaining control of these works, the cost of which is very trifling in comparison, is that the supply of water is governed by the canal authorities, and it would be to say the least very awkward if the control were handed over to the lumbermen as in the other districts.

GRAVING DOCKS

ESQUIMALT

The revenue for the last fiscal year was \$26,253.30, being \$2,070.53 more than for the preceding year. During the year the dock was occupied for eighty-two days of which it served four Canadian Government vessels for seven days and others for seventy-five days. The dockages were in many cases for very short periods, which accounts for the tonnage being 111,991 tons against 107,941 tons in the previous year. During the last fiscal year, I examined the books and accounts of the dock from the period from 1914 to July, 1920, and found everything in perfect order.

LÉVIS DOCK

Notwithstanding the increase in the tolls provided in a revision of the tariff on April 9, 1919, the amount of dues received was \$17,575.33 less than in the previous year, it being \$31,609 (see statement herewith). This seems to require explanation. In the revised tariff the charges for the first day of docking was reduced in a very large number of cases, the idea governing the revision of the tariff was that the dues of the dock should be simply a rental for the use of it. Under the old tariff the first day charge covered the cost of docking the vessel, varying from \$300 to \$400 per day, which the department paid a company to do because it would have been out of the question to have kept a staff of men constantly on the pay-roll who would only be occupied for a few days at a time when the ship was being docked or undocked, and idle for the remainder of the time, which condition of affairs would have been necessary as men skilled in this work could not have been picked up for a few days at a time when required. Consequently, under the new tariff the first day charge was a net rental, and in balancing up at the end of the year, although I do not follow the expenditure of the dock, the expense would have been reduced by the amounts which we paid during the previous year for docking vessels as described. During the season of navigation, two Canadian Government vessels occupied the dock for 59 days and merchant ships for 134 days, 193 days in all. During the winter of 1920-21, the dock was occupied by two vessels. The gross tonnage of vessels which occupied the dock during the season of navigation was 25,411, while for the preceding year it was 23,667.

KINGSTON DOCK

The Collingwood Shipbuilding Company, the lessees, have paid the reduced rental authorized in 1918, namely, \$5,000, to May 1, 1920.

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SELKIRK REPAIR SLIP

The revenue for the last fiscal year was \$3,055.85, being \$275.36 more than for the previous year (see statement). The slip was occupied for 61½ days by 33 vessels of 3,594 tons; of this, eight Canadian Government vessels of 1,021 tons occupied the dock for 14 days.

RENTS AND SALES

During the year 1920-21, the revenue accrued from rents and sales was \$204,912.89, or \$54,819.47 more than the preceding year. The collections were \$203,403.67 or \$60,048.23 more than in 1919-20. The accounts stand thus:—

Balance from previous years..		\$ 18,860 15
Accrued to March 31, 1921..		204,912 89
		<hr/>
		\$223,773 04
Collected..	\$203,403 67	
Written off..	5,656 47	
Balance March 31, 1921..	14,712 90	
	<hr/>	<hr/>
		223,773 04

Of the amounts apparently uncollected, namely, \$14,712.90, there is one item alone of \$10,600.62 composed of a charge for Dunville Bridge, Ont., and another for the Dundas and Waterloo road, which business came to this department from the Inland Revenue Department in 1909. These matters originated a great many years ago and I am not aware that we were ever furnished with the details, but I take it from the condition of the accounts that they are of very doubtful value. Of the remainder, \$4,112.28, a considerable portion has been collected since the close of the financial year.

The amounts written off, totalling \$5,656.47, are nearly altogether composed of commissions for collections allowed to agents, and the cost of upkeep of property expropriated in Toronto, and elsewhere.

In all fairness it may be claimed that in the administration of these properties there are serious obstacles to obtaining as favourable results, rentals, etc., as compared with similar properties in the hands of private individuals. The latter can make terms, periods of leases, etc., as is seen fit, but we can not give any assurance in most cases of any more than a thirty-day term as we do not know when some of these properties may be required by the Government. Hence we cannot expect to obtain as good rentals as parties who can give a lease for one or more years, and this condition also makes it difficult for our agents to retain the tenants we may have. In consequence of the great cost of repairs, higher taxes, etc., the rentals have been raised considerably, principally in the large blocks in Toronto and Ottawa, so far without the tenants making any serious complaint. Our agents have done their work well and I do not anticipate any loss of rental except from unavoidable misfortune to some of our tenants.

The following is a summary of rents collected from public properties during the year ended March 31, 1921:—

Hydraulic and other rents..	\$ 3,480 00
Ottawa, Sussex street..	2,619 57
" Egan block..	400 08
" Wellington street North..	20,487 93
Toronto post-office site..	10,288 50
Province of Manitoba..	441 00
Victoria, Esquimalt, etc., B.C..	2,291 50
Public building sites..	20,861 19
Sundry rents..	64,335 92
Plant rentals..	3,363 00
Sales and interest..	74,834 98
	<hr/>
	\$203,403 67

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FERRIES

The balance outstanding on March 31, 1920, was \$1,895.29. There was accrued during the year \$2,039 net, making a total of \$3,934.29, and being \$360.33 more than the previous year. The amount collected was \$2,009.67, being \$377.67 greater than in 1920-21, while the balance at the end of the financial year was \$1,924.62. Of the latter amount, \$51 has since been paid and \$25 should not have been charged up. The remainder consists of old balances which accrued years ago, before these accounts were transferred to this department. Annexed hereto are statements of the details of revenue from the ferries.

Also statements of the details of revenue from the Esquimalt dock, Lorne dock at Lévis, and the repair slip at Selkirk, Man., and a comparative table of the revenue accrued and amounts collected on account of same during the financial year.

COMPARATIVE Table of Public Works Revenue accrued during the year ended March 31, 1921, compared with that of the fiscal year ended March 31, 1920, and of amounts collected on account of same.

	Year ended March 31, 1921	Year ended March 31, 1920	Increase, 1921	Decrease, 1921
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Slides and booms—				
Ottawa District		11,836 82		11,836 82
St. Maurice District..		55,165 69		55,165 69
Newcastle District.	346 76		346 76	
Net decrease, \$66,655.75.	346 76	67,002 51	346 76	67,002 51
Graving docks—				
Esquimalt, B.C.	26,253 30	24,182 77	2,070 53	
Kingston, Ont.	5,000 00	5,000 00		
Lévis, P.Q.	31,609 00	49,184 33		17,575 33
Selkirk repair slip, Man.	3,055 85	2,780 49	275 36	
Net decrease, \$15,229.44	65,918 15	81,147 59	2,345 89	17,575 33
Ferries, increase, \$360.33..	2,039 00	1,678 67	360 33	
Rents and sales—				
Hydraulic rents.....	3,461 00	3,560 00		99 00
Minor public works..	26 00	26 00		
Other public properties	201,425 89	146,477 42	54,948 47	
Net increase, \$54,849.47.....	204,912 89	150,063 42	54,948 47	99 00
Accrued—				
Slides and booms.....	346 76	67,002 51		66,655 75
Graving docks.....	65,918 15	81,147 59		15,229 44
Ferries..	2,039 00	1,678 67	360 33	
Rents and sales.	204,912 89	150,063 42	54,849 47	
Net decrease, \$26,675.39.....	273,216 80	299,892 19	55,209 80	81,885 19
Collected -				
Slide and boom dues	5,873 41	48,133 41		42,260 00
Graving Docks.....	65,918 15	81,147 59		15,229 44
Ferries..	2,009 67	1,632 00	377 67	
Rents and sales ..	203,403 67	143,355 44	60,048 23	
Special Account (refund)...	4,555 52		4,555 52	
Net increase, \$7,491.98....	281,760 42	274,268 44	64,981 42	57,489 44

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THE DRY DOCK AT ESQUIMALT, B.C.

STATEMENT of Dues and other charges collected during the year ending March 31, 1921

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1920	1920	\$ cts.	\$ cts.	\$ cts.
D.G.S. Launch "Fispa" and "Lilloet" and 2 scows		April 7	April 14	1,500 00	32 40	1,532 40
SS. "Canora"	2,382	" 28	May 8	1,587 50	57 60	1,645 10
SS. "Amur"	907	June 1	June 8	800 00	9 00	809 00
SS. "Canadian Prospector"	5,492	" 14	" 14	200 00	1 80	201 80
SS. "Princess Charlotte"	3,844	" 22	" 23	200 00		200 00
SS. "Princess Charlotte"	3,844	" 29	" 30	200 00		200 00
SS. "Canadian Importer"	5,465	July 10	July 11	200 00	4 80	204 80
SS. "Canadian Inventor"	5,465	" 14	" 15	200 00	2 40	202 40
SS. "Canadian Exporter"	5,498	" 27	" 29	749 80	7 80	757 60
SS. "Princess Charlotte"	3,844	Aug. 4	Aug 5	200 00	25 20	225 20
SS. "Mount Etna"	4,277	" 7	" 8	200 00		200 00
SS. "Mattawa"	4,874	" 8	" 10	1,174 80	18 60	1,193 40
SS. "Pacific"	3,731	" 25	Sept. 6	5,100 00	294 60	5,394 60
SS. "El Lobo"	4,800	Sept. 7	" 11	1,640 00	45 60	1,685 60
SS. "Princess Charlotte"	3,844	Oct. 2	Oct. 2	200 00		200 00
SS. "Margaret Caughlan"	5,825	" 9	" 11	782 50	15 00	797 50
SS. "Canadian Prospector"	5,492	Nov. 11	Nov. 15	1,847 60	1 20	1,848 80
SS. "Canadian Winner"	5,492	" 22	" 23	749 20	3 60	752 80
SS. "Princess Charlotte"	3,844	" 30	" 30	200 00		200 00
SS. "Talarite"	2,631	Dec. 3	Dec. 7	726 20	7 20	733 40
SS. "Princess Adelaide"	3,060	" 12	" 13	200 00	5 40	205 40
SS. "Canadian Inventor"	5,465	" 14	" 16	746 50	3 60	750 10
		1921	1921			
SS. "Amur"	907	Jan. 11	Jan. 13	290 70	3 00	293 70
SS. "Princess Maguinna"	1,850	" 17	" 17	200 00		200 00
SS. "Canadian Exporter"	5,498	" 19	" 21	749 80	2 40	752 20
SS. "City of Vancouver"	5,497	Feb. 3	Feb. 4	749 70	16 80	766 50
SS. "Prince Rupert"	3,379	" 14	" 24	3,200 00	133 20	3,333 20
SS. "Canadian Traveller"	5,492	Mar. 15	Mar. 16	749 20	16 80	766 00
SS. "Canadian Prospector"	5,492	" 26	" 26	200 00	1 80	210 80
	118,191			25,543 50	709 80	26,253 30

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THE DRY DOCK AT LEVIS (LORNE DOCK)

STATEMENT of Dues and other charges collected during the year ending March 31, 1921

Name of Vessel Docked.	Tonnage.	Period of Dockage		Dockage Charges.	Other Charges.	Total.
		From	To			
		1920	1920	\$ cts.	\$ cts.	\$ cts.
SS. "Metzwise"		Entry fee		200 00		200 00
SS. "Bishiwiller"		"		200 00		200 00
SS. "Plessis"	559	May 4	May 10	500 00		500 00
St. B. "Howard W."	1,516	" 4	" 8	510 00	3 00	513 00
SS. "Boulay"	1,100	" 12	" 20	438 00	4 50	442 50
SS. "Bitche"	1,100	" 12	" 20	438 00	1 50	439 50
SS. "Bischiwiller"	1,100	" 20	" 27	350 00		350 00
SS. "Forbach"	1,100	" 20	" 27	350 00		350 00
SS. "Lady Grey"		Entry fee		200 00		200 00
SS. "Henry County"		"		200 00		200 00
SS. "Franklin County"		"		200 00		200 00
SS. "Alice"		Winter	1920-21	600 00		600 00
SS. "Lady Grey"	733	May 29	July 24	3,580 00	6 00	3,586 00
SS. "Manola"		Winter	1920-21	1,704 00		1,704 00
SS. "Lake Herminia"	2,686	Aug. 10	Aug. 19	1,548 75	4 50	1,553 25
SS. "Thomas Krag"	3,569	" 19	Sept. 1	2,725 00	20 00	2,745 00
SS. "Pontoons 1 and 2"		Entry fee		400 00		400 00
SS. "Montcalm"	1,432	July 27	Aug. 20	1,470 00	6 00	1,476 00
SS. "J. A. McKee"		Entry fee		200 00		200 00
SS. "J. A. McKee"	2,158	Sept. 3	Oct. 15	5,180 50	34 75	5,215 25
Q.H.C. "Dredge No. 2"	519	Oct. 16	" 30	400 00		400 00
SS. "Aranmore"	1,170	" 16	" 30	1,078 00	6 00	1,084 00
SS. "Champlain"		Entry fee		200 00		200 00
SS. "Georgie"		"		200 00		200 00
SS. "John S. Thom"		"		200 00		200 00
SS. "Georgie"	6,663	Oct. 31	Nov. 30	8,342 50	108 00	8,450 50
	25,411			31,414 75	194 25	31,609 00

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THE DRY DOCK AT SELKIRK, MAN.

STATEMENT of Dues and other charges collected during the year ending March 31, 1921

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1920	1920	\$ cts.	\$ cts.	\$ cts.
Dredge No. 205.....	215	May 7.	May 8.	50 00	.....	50 00
Dredge No. 201.....	442	" 8..	" 12.	176 80	.....	176 80
Ferry.....		" 19	" 22..	90 00	.....	90 00
"Grand Rapids".....	438	" 22..	" 22.	87 60	.....	87 60
"Roddy S".....	56	" 25.	" 26..	70 00	.....	70 00
"Tempest".....	75	" 26..	" 26..	50 00	.....	50 00
"J. R. Spears".....	31	" 27	" 29..	70 00	.....	70 00
"Lady of the Lake".....	201	" 29..	" 31..	60 05	.....	60 05
"Luanna".....		" 29..	" 31..	60 00	.....	60 00
"Goldfield".....	56	June 1..	June 2..	60 00	.....	60 00
"Majestic".....	127	" 1..	" 2	60 00	.....	60 00
"Daisy".....	58	" 3.	" 4..	60 00	.....	60 00
Bge. "Alexander".....		" 4..	" 7..	70 00	.....	70 00
"Wolverine".....	278	" 18..	" 19	69 50	.....	69 50
Mud Scow for 205.....	100	" 21	" 22	50 00	.....	50 00
Coal Barge.....		" 24..	" 25..	50 00	.....	50 00
"Lady of the Lake".....	201	July 5..	July 6.	50 00	.....	50 00
"Daisy".....	58	Aug. 12	Aug. 14..	70 00	.....	70 00
"Garry".....	120	" 19..	" 27.	180 00	.....	180 00
"Tempest".....	75	" 28..	" 28..	50 00	.....	50 00
"Roddy S".....	56	" 28..	" 31	90 00	.....	90 00
"Idell".....	54	Sept. 1	Sept. 3..	80 00	.....	80 00
"Wolverine".....	278	" 8..	" 9	69 50	.....	69 50
Mud Scow for 205.....	100	" 16..	" 20..	90 00	.....	90 00
"Manamakee".....	10	" 25.	" 27..	50 00	.....	50 00
"Vaughan".....	134	" 27.	" 30..	90 00	.....	90 00
"Garry".....	120	Oct. 4	Oct. 4..	50 00	.....	50 00
"Roddy S".....	56	" 11.	" 12..	50 00	.....	50 00
"Goldfield".....	56	" 14	" 16.	70 00	.....	70 00
"Idell".....	54	Oct. 14..	Oct. 16..	70 00	.....	70 00
"Peguis".....	39	" 25	" 26.	50 00	.....	50 00
"Idell".....	54	Nov. 8..	Nov. 10.	70 00	.....	70 00
"Hecla".....	19	" 12	" 13.	50 00	119 30	169 30
"Wolverine".....	278	Wintering		573 10		573 10
	3,594			2,936 55	119 30	3,055 85

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ANNUAL STATEMENT OF REVENUE ACCOUNTS OF FERRIES, FOR THE
YEAR ENDING MARCH 31, 1921

Ferries.	Balance, March 31, 1920.	Accrued during the period.	Rent return.	Deposited to credit of Receiver General.	Balance.
	\$ cts.	\$ cts.		\$ cts.	\$ cts.
Hull.....	1,736 79	.....	.....	.....	1,736 79
St. Clair Station and Lot Kent....	45 83	.....	.....	.....	45 83
St. Leonard and Van Buren.....	30 00	.....	.....	.....	30 00
Edmunston and Maine.....	20 00	.....	.....	.....	20 00
Pembroke and Allumette (old)	1 00	.....	.....	.....	1 00
Buckingham and Cumberland.. ..	15 00	.....	.....	.....	15 00
Rockliffe and Gatineau Point.....	.....	1,530 00	April, 1920..	382 50	.....
			July, 1920	382 50	.....
			Nov. 1920..	382 50	.....
			Mar., 1921..	382 50	.....
Walpole Island and Algonac, Mich....	.....	1 00	April, 1920..	1 00	.....
Fort Erie and Buffalo.....	16 67	50 00	" 1920.	16 67	50 00
Sault Ste. Marie.....	.....	100 00	" 1920.	100 00	.....
Calumet and L'Orignal.....	.....	25 00	" 1920..	25 00	.....
Courtright and St. Clair.....	.....	10 00	" 1920..	10 00	.....
Rainy R. and Baudette and Spooner	.....	25 00	" 1920..	25 00	.....
Brockville and Morristown.....	.....	1 00	" 1920..	1 00	.....
Fitzroy and Onslow.....	.....	5 00	" 1920..	5 00	.....
Sand Point and Norway Bay.....	.....	5 00	" 1920..	5 00	.....
Buffalo and Point Abinot.....	.....	50 00	" 1920..	50 00	.....
Buckingham and Cumberland.....	.....	5 00	" 1920..	5 00	.....
Walkerville and Detroit.....	.....	1 00	" 1920..	1 00	.....
Fassett and St. Thomas d'Alfred.....	.....	10 00	May, 1920.	10 00	.....
Pembroke and Allumette.....	.....	130 00	June, 1920.	130 00	.....
Campbellton and Cross Point.....	.....	10 00	Aug., 1920.	10 00	.....
Walkerville and Detroit.....	.....	1 00	" 1920	1 00	.....
Fitzroy and Onslow.....	.....	5 00	Oct., 1920	5 00	.....
Sombra and Marine City.....	.....	9 00	" 1920.	9 00	.....
Niagara and Youngstown.....	30 00	30 00	" 1920.	60 00	.....
Courtright and St. Clair.....	.....	10 00	Feb., 1921..	10 00	.....
Prescott and Ogdensburg.....	.....	1 00	.....	.....	1 00
Fort Francis and International Falls...	25 00	25 00
	1,895 29	2,039 00	2,009 67	1,924 62

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" Militia and Defence (Dennis B.)...	4,870 00	82 25	1,093 17	8,455 32	3,047 75	2,978 38	653 11	489 08	1,093 17
" Naval service, 121 Hollis st		5,907 11							82 25
" post office, etc			9 30						26,400 75
" Public Works (storage).....									9 30
" quarantine station...		1,968 75			962 30				2,931 05
" "Rockhead" public building.		208 50		40 00	977 03				1,225 53
" Simpson B. (Labour Dept.)		94 40	85 00						207 40
" Steamships Inspector's office...			550 00			28 00			550 00
" weights and measures office, 229 Hollis st.....			840 00						
Inverness, post office		12 49		726 68	626 50	385 50	45 00		852 49
Kentville experimental farm	8,656 66	315 79			1,188 25	183 26			2,099 47
" post office, etc		82 89		726 98	15 00	302 34	50 00		10,028 17
Liverpool, post office, etc		202 00		1,010 58	493 50	251 07	18 00		1,177 21
Lunenburg, post office		419 84		808 07	540 00	584 26	59 00		1,975 15
Nappan experimental farm	6,835 93				186 25	248 63			2,411 17
New Glasgow, post office, etc		423 59		750 06	591 57	658 53	100 00		7,270 81
North Sydney, immigration building.....		76 95			211 20				2,523 75
" Master and Mates office...			30 00						288 15
" post office		164 27	4 00	808 55	11 60	517 03	32 00		30 00
" Public Works office (engineer)			934 00			9 04			1,537 45
Parrsboro, post office.....		224 00	25 00	838 83	487 50	379 53	52 00		943 04
Pictou, custom house, etc		628 14		300 00	557 45	28 47	14 65		2,006 86
" post office		635 60		338 75	48 75	166 89	27 11		1,528 71
Shelburne, post office, etc		161 71		791 73	473 25	273 16			1,217 10
Springhill, post office, etc.		121 90		657 51	432 88	300 01	60 00		1,702 85
Stellarton, post office			300 00						1,572 30
Sydney "Post" building (Marine and Fisheries, etc.)									300 00
" post office, etc	1,463 87	34 84	609 00	1,275 74	74 00	651 50	89 25		609 00
" quarantine station		248 62			205 50				3,589 20
Sydney Mines, post office, etc	47 50	321 53		625 52	387 51	557 05	52 50		454 12
Trenton, post office			600 00	719 96	93 60	33 25			1,991 61
Truro, post office		519 89			696 00	566 07	32 00		726 85
" temporary		203 00	200 00						2,533 92
Westville, post office...		43 65		734 98	409 50	253 68	25 00		403 00
Weymouth, post office...			100 00						1,466 81
Windsor, post office, etc		565 58		898 96	640 75	369 65	75 00		100 00
Wolfville, post office		120 92		807 82	1,003 75	183 75	38 00		2,549 94
Yarmouth, post office, etc	27,120 02	984 04		782 48	1,897 41	563 84	54 00		2,154 24
Yarmouth, post office, etc, (temporary)		262 21	150 00		25 00	386 47			31,401 79
Nova Scotia Generally, minor offices throughout the Province ...		366 65					27 16		823 68
Totals, Nova Scotia	69,060 54	25,068 31	12,521 35	38,696 47	25,991 59	15,750 90	2,566 85	610 92	19,266 96

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents	Salaries and Supplies for Caretakers	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.									
Prince Edward Island									
Charlottetown, custom house, etc.		960 01	68 00	1,234 85	349 78	24 83	34 00		2,671 47
" experimental farm.....	5,806 47				961 08	192 97		25 20	6,985 72
" immigration office		68 01	269 37						337 38
" post office, etc.	1,740 71	322 90		3,309 48	2,031 48	1,904 31	225 00		9,533 88
" Public Works office (clerk of works office)		55 81	216 08	50 00		8 85			330 74
" Public Works office (superinten- dant of dredges)		11 50	150 00	55 00		12 62			229 12
Georgetown, post office, etc.		374 18		176 89	565 40	117 30			1,233 77
Keppock, quarantine station					259 20				259 20
Montague, post office, etc.		61 44		489 49	511 50	77 45			1,139 88
Souris, post office, etc.		331 94		543 79	331 47	209 05			1,416 25
Summerside, post office, etc.		315 65		960 27	755 24	702 65	70 99		2,804 80
Tignish, post office.....		1,222 15	2 00	781 33	493 22	444 98			2,944 28
Prince Edward Island generally, minor offices throughout the province.....		0 35							0 35
Totals, Prince Edward Island....	7,547 18	3,723 94	705 45	7,601 70	6,258 37	3,695 01	329 99	25 20	29,886 84
New Brunswick									
Bathurst, post office, etc.....		343 43		775 03	754 00	245 65			2,118 11
Campbellton, post office, etc.		682 63		798 00	1,358 27	385 59	52 00		3,276 49
Campobello, fisheries office			120 00						120 00
Chatham, post office, etc.		27 00	45 00	728 48	862 54	407 85	50 00		2,120 87
" quarantine station.....					243 40				243 40
Dalhousie, post office, etc.....		423 62		667 60	306 96	114 76	19 50		1,532 41
Edmundston, immigration office.			60 00						60 00
" post office.....			400 00						400 00
Fairville, post office.....		76 37	29 98	751 80	7 50	109 53	17 10		992 28
Fredericton, custom house (old post office).		319 91		774 96	1,009 54	231 58	15 78		2,384 77
" experimental farm.....	4,269 87				782 74				5,052 61
" post office, etc.		467 50		1,008 30	2,124 56	1,084 52	48 03		4,732 96
Grand Falls, post office		140 55		799 45	573 96	148 23	33 00		1,695 19
Hampton, post office (Ossekeag).....		103 95	25 00	730 81	360 13	77 10			1,296 99
Hartland, post office, etc.		25 57		684 75	482 14	197 16	30 00		1,419 62
Hillsborough, post office, etc.		148 28		729 98	132 00	112 70			1,122 96
Marysville, post office.....		725 18		166 85	414 45	67 74	12 00		1,386 22

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Milltown, post office, etc.....	181 86	782 77	562 43	228 02	32 40	1,787 48
Moneton, examining warehouse.....	14 45	56 50	2 85	1,673 80
“ “ post office.....	1,475 52	1,095 80	550 00	570 98	134 00	5,616 30
“ “ “ additional post office.....	.....	.....	135 00	334 71	.....	1,189 71
“ “ “ Labour Department.....	.....	.....	.....	.....	.....	480 00
Newcastle, post office, etc.....	239 71	808 48	1,222 62	696 40	35 00	3,002 21
Richibucto, post office.....	55 07	750 18	578 90	249 24	.....	1,633 39
St. John, custom house, etc.....	3,395 67	6,699 46	1,524 00	796 05	2,511 84	15,336 36
“ “ C.P.R. station mail room.....	.....	.....	.....	.....	200 44	150 00
“ “ immigration building.....	2,418 85	.....	1,249 85	1,088 49	875 75	14,792 72
“ “ post office, etc., (old).....	561 58	3,843 85	1,035 76	626 79	460 27	6,528 25
“ “ “ (new).....	3,281 73	10,289 34	3,489 72	1,907 88	789 87	23,824 58
“ “ quarantine station.....	230 17	520 00	7,394 08	.....	870 85	36,747 77
“ “ savings bank.....	318 28	457 35	955 20	266 44	113 52	2,110 79
St. John West, post office.....	484 48	416 36	204 39	220 37	9 98	1,335 58
St. Stephen, immigration office.....	.....	.....	108 00	.....	7 60	415 60
“ “ post office, etc.....	152 71	789 63	532 98	229 27	77 42	1,782 01
Sussex, post office, etc.....	172 48	725 23	392 44	185 02	58 00	1,533 17
Tracadie Lazaretto.....	983 40	2,110 00	615 89	20 51	.....	3,729 80
Woodstock, post office, etc.....	308 17	703 74	612 37	379 43	137 56	2,141 27
New Brunswick generally—minor offices throughout the province.....	2,936 53	.....	.....	23 30	.....	2,959 83
Totals, New Brunswick.....	20,694 65	38,608 20	30,632 32	11,011 16	6,421 52	158,725 53
44,035 56	6,251 68	.....	.....	.....	1,070 44	.....
Quebec						
Acton Vale, post office.....	14 75	853 76	501 81	125 43	21 00	1,516 75
Arthabaska, post office.....	46 31	825 11	627 24	148 71	100 00	1,747 37
Asbestos, post office.....	.....	.....	.....	.....	.....	200 00
Aylmer, post office.....	50 93	147 16	477 50	242 25	106 75	1,021 59
Beaubarnois, post office.....	29 70	.....	210 17	54 57	.....	629 44
Berthierville, post office.....	10 15	111 25	315 52	77 79	.....	514 71
Black Lake, post office.....	.....	.....	.....	.....	.....	150 00
Brownsburg, post office.....	.....	.....	.....	.....	.....	99 96
Buckingham, post office.....	107 05	235 95	609 62	141 00	.....	1,093 62
Cap Rouge, experimental farm.....	.....	.....	3,260 61	.....	.....	10,978 22
Chicoutimi, post office.....	149 31	912 64	1,006 46	600 40	300 00	3,023 06
Coaticook, post office, etc.....	165 71	844 15	770 81	258 07	71 25	2,109 99
Compton, post office.....	7 75	.....	.....	.....	.....	117 73
Cookshire, post office.....	33 42	781 75	464 01	174 36	53 00	1,506 54
D’Israeli, post office.....	.....	.....	.....	.....	.....	122 50
Drummondville, post office, etc.....	222 37	1,035 96	328 57	89 81	.....	1,676 71
Dundee, custom house.....	24 21	15 57	183 40	32 19	.....	255 37
East Angus, post office.....	349 18	797 47	700 90	308 98	150 00	2,306 53
Farnham, experimental farm.....	.....	.....	.....	41 30	.....	2,840 35
“ “ post office.....	233 20	744 38	614 05	109 72	53 00	1,751 35
Fraserville, post office, etc.....	58 90	800 81	138 25	135 00	200 00	1,332 96
“ “ Riv. du Loup Station, post office.....	.....	.....	.....	.....	.....	275 00
Granby, post office.....	115 99	858 05	618 25	372 32	150 00	20,026 16
17,911 55	.....	.....	.....	.....	.....	.....

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents	Salaries and Supplies for (aretakers	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—(Continued									
Quebec—Continued									
Grosse Isle, quarantine station		10,704 29			8,959 01				19,663 30
Hemmingford (Huntingdon), Immigration office.		1 00	60 00						61 00
Hemmingford (Huntingdon), Entomological Laboratory...		1 32							1 32
Hull, post office.		1,409 17		205 89	502 45	186 84	386 37		2,690 72
" research laboratory...	4,159 79	370 83			745 75	14 40			5,290 77
Huntingdon, post office.			675 00						675 00
Iberville, post office.				504 75	161 65	34 44	19 00		719 84
Joliette, post office, etc.		935 88		934 61	754 42	335 15	110 00		3,070 06
Jonquières, post office.		273 11		775 56	509 00	148 99	26 88		1,733 54
Knowlton, post office, etc		257 18		214 32	1,095 50	160 49	21 00		1,748 49
Lachine, post office.		357 15		166 81	400 20	169 62	53 30		1,147 08
Lachute, post office.		630 75		837 98	295 44	447 96	37 50		2,249 63
Lacolle, immigration office.			144 00		85 51	12 00			241 51
Laprairie, post office.		26 42		186 40	422 57	112 16	67 50		815 05
L'Assomption, post office.		71 65		321 04	360 08	57 25	65 00		875 02
Lennoxville, experimental farm.	10,092 09				773 65	95 28			10,961 02
Levis, post office, etc.		334 96		1,352 09	844 74	208 26	325 00		3,065 05
Longueuil, post office.		35 82		740 90	445 95	58 69	62 70		1,344 06
Louiseville, post office.		116 95		718 77	519 00	241 50	12 50		1,608 72
Magog, post office, etc.		116 24		804 66	713 56	80 72	98 20		1,813 38
Marieville, post office.		6 49		538 65	503 47	56 72	68 00		1,173 33
Matane, post office.		91 20		800 52	563 64	60 20	101 00		1,616 56
Megantic, post office.		81 70		814 03	81 65	317 93	63 00		1,358 31
Mont Joli, post office.		18 50							18 50
Montmagny, post office, etc.		80 65		767 02	695 16	252 25	50 00	15 00	1,860 08
" public works storage.			50 00						50 00
Montreal, Board of Commerce bldg., 15 St. James street.		427 47	510 00						937 47
" Bonaventure station mail room.		2 50	252 00						254 50
" Coristine bldg., Trade and Commerce			849 96						849 96
" custom house, etc.	3,583 63	143 13	62 72	191 89	3,106 46	385 93	445 23		7,918 99
" (canal office).		18 58			21 81	27 40	17 46		85 25
" examining warehouse (old).	2,574 61	12 30		123 20	8,673 31	1,547 88	1,440 99	559 07	14,931 36
" (new).	5,976 55	257 36	15 68	630 40	9,597 70	3,063 82	4,096 93	2,871 07	26,509 51
" Drummond building, (Railways and Canals office).		13 15							13 15

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forest products laboratory.....	63 06				1,051 37	778 59	186 90	1,726 46	3,806 38
immigration building.....	1,672 82				2,724 20	5 41	1,215 97	155 72	5,774 12
inland revenue building.....	1,671 02			657 90	881 46	146 96	145 50		3,502 84
La Sauvagarde bldg., signal service..		433 35							433 35
Place Viger station, mail room.....		274 67							274 67
post office, etc.	10,442 97	363 24	3,259 93		6,233 82	10,235 40	3,899 20	4,597 59	67,863 08
post office annex (old Herald bldg.)....	368 63	8,097 42	18 50		953 17	161 03	349 20	351 33	10,299 28
postal station "A," etc.....	881 65	33 26	119 00		1,441 80	342 16	378 30	680 23	3,876 40
"B".....	833 77		813 15		942 27	369 63	582 00		3,540 82
"C".....	777 75	15 29	195 45		928 59	239 68	883 73		3,040 49
"D".....	152 14		872 00		879 51	195 16	174 60		2,273 41
"E".....	461 68		797 55		729 68	190 96	78 82		2,258 69
"F".....	576 81	8 68	91 65		1,345 84	310 08	192 79		2,525 85
"G".....									34 13
"H," etc.	1,164 21	85 19	273 00		4,240 53	1,117 64	1,761 15	2,531 55	11,173 27
"L".....	149 30		103 30		890 23	266 91	175 70		1,585 44
"M".....		600 00	2 20		280 50	39 52	14 50		936 72
"N".....	10 35	6,814 80	4 40			257 95	232 80		7,320 30
"O".....	496 00		605 65		540 39	150 73	68 10		1,860 87
"R" (St. Denis ward).	753 24	1,100 00	253 60		148 75	54 56	18 61		2,328 76
"S".....	275 92		5 65		603 93	104 53	116 40		1,106 43
Delormier Ave.....	16 95	916 63	3 50		3 80	77 36	58 20		1,076 44
Hochelaga.....	378 90		307 90		649 05	156 24	139 68		1,631 77
Maisonneuve.....									6,113 37
Notre Dame de Grace..	46 95	1,025 80				6 32	33 95		1,113 02
Outremont.....	461 17	2,100 00	192 00			164 80	33 15		2,951 12
Ste. C'unegonde..		1,750 00							1,750 00
St. Henri.....	334 92		15 35		558 95	210 56	87 81		1,207 59
Verdun.....	54 55	1,350 00	76 70			22 25	81 00		1,584 50
Shaughnessy bldg. (Marine, etc.)....	223 77	21,050 58				627 32	875 91		22,777 58
Westmount inland revenue office.		295 00							295 00
Windsor mail room....	139 04	350 00	105 60					92 40	687 04
generally.....	5,563 64		157,449 88			8,328 19			171,341 71
Mont Joli, post office.....		240 00	4 12		149 85	49 50			443 47
Murray Bay, post office.....					630 00	217 52	50 00		1,937 98
Napierville, post office.....	108 73		931 73						93 55
Nicolet, post office, etc.....	48 30		786 98		323 15	237 12	70 80		1,466 35
Nominique, immigration building	131 33		150 00		225 00				506 33
Pierreville, post office.	30 75		156 65		137 60	59 40	10 00		394 40
Plessisville, post office	273 85		419 35		424 55	259 78	55 90		1,433 43
Quebec, archives office		585 00	396 00			14 57			995 57
" Canada Food Board, 103 St. John st		10 00							10 00
" Citadel (Governor General's quarters).	1,365 04	65 28	694 75		1,654 64	179 10			3,958 81
" custom house, etc	560 09	139 72	5,016 55		1,851 93	917 40		700 00	9,185 69
" examining warehouse..	189 28		4,173 30		2,502 22	320 85		900 00	8,085 65
" immigration buildings (Louise embank- ment).....									
" immigration detention hospital (Savard Park).....					9,936 98	1,105 20	1,231 65	1,365 00	16,782 05
" immigration detention hospital (Medical Supt's residence)	30 00								30 00
		600 00							600 00

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Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued									
Quebec—Continued									
Quebec, marine agency (King's wharf).....	8,400 50				1,067 30		750 00		10,217 80
" observatory.....		9 50				56 67	50 00		116 17
" post office, etc. (main).....	2,711 53	254 39	215 07	15,598 07	6,249 38	1,691 99	810 00	1,887 51	29,417 97
" postal station "B".....		2 00	4,375 00			179 96			4,556 96
" Candiac post office.....			75 00						75 00
" Laubourg St. Jean, post office.....			2,100 00	108 00		75 18			2,283 18
" St. Roch post office.....		10 25		991 92	651 82	393 87	375 00		2,425 86
" St. Sauveur post office.....		28 59		719 98	519 46	295 97	155 00		1,719 00
" weights and measures office.....					272 79	21 39			294 18
" generally.....		1,164 25		8,425 83		19 20			9,609 28
Richmond, post office, etc.....	2,876 01	153 05		846 97	628 74	331 41	25 00		4,861 18
Rigaud, post office, etc.....		168 62		339 60	641 69	203 47	11 00		1,364 38
Kimouski, post office, etc.....		994 75	59 00	379 32	241 10	159 97	150 00		1,984 14
Roberval, post office, etc.....		58 65		815 38	925 95	266 62	25 00		2,091 60
Rock Island, post office, etc.....		779 90		791 02	551 20	230 97	28 52		2,384 61
Ste. Agathe des Monts, post office.....		126 62	250 00	784 32	666 86	217 40	527 00		2,322 20
Ste. Anne de Bellevue, post office.....						46 63	35 00		331 63
Ste. Anne de la Pocatiere, experimental farm.....	8,107 63				800 00				8,907 63
St. Eustache, post office.....			445 00			24 68			469 68
St. Felix de Valois, post office.....			87 00						87 00
St. Gabriel de Brandon, post office.....		94 13		799 35	541 00	203 06	50 00		1,690 54
St. George de Beauce, post office.....		139 88	200 00	774 70	342 71	38 91	189 00		1,485 20
St. Hyacinthe, inland revenue building.....		685 22		899 66	656 49	164 50	189 00		2,594 87
" post office, etc.....		153 90		349 92	325 00	55 69	60 00		944 51
St. Jean, custom house.....		1,190 17		309 85	635 05	191 75			2,326 82
" post office.....		171 80		757 53	638 07	70 57	70 88		1,708 85
St. Jerome, post office, etc.....		7 02	200 00			28 73	9 00		244 75
St. Joseph de Beauce, post office.....		49 83		773 28	510 00	79 25	26 52		1,438 88
St. Lambert, post office.....					98 10				98 10
St. Regis, customs office.....			162 00						162 00
Ste. Rose, post office.....				869 72	814 85	241 47			2,297 83
Ste. Therese, post office, etc.....		371 79	200 00		204 07	44 20			448 27
St. Tite, post office.....			125 00						125 00
Sayabec, post office.....		757 80		773 43	992 00	100 05	57 25		2,680 53
Shawinigan Falls, post office.....		22 55		787 08	444 72	380 97			1,635 32
Shawville, post office.....		501 34		1,260 74	1,709 13	735 09	44 50		6,367 37
Sherbrooke, post office, etc.....	2,081 92		34 65			40 28			1,242 63
" inspector's office.....		206 35	996 00						

DEPARTMENT OF PUBLIC WORKS

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building.	Construc- tion and Improve- ments	Repairs and Furniture	Sundry Mainten- ance	Rents	Salaries	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Ottawa Buildings</i>										
Parliament buildings.....	1,893,895 91				14,053 47	784 36*	8,945 78	76 96	7,920 73	1,925,677 21
Central heating plant (connection with sundry buildings).....	17,499 86									17,499 86
Central heating plant—operation for the heating of sundry buildings as per statement at foot					16,082 29	256,777 50	108 91		569 66	273,538 36
<i>Departmental Buildings—</i>										
East Block.....	9,497 93				6,560 13	625 66*	4,880 25	3,194 21	849 20	25,607 38
West Block.....					7,250 10	1,057 96*	3,345 47	12,287 90	1,318 60	25,260 03
Languevin Block.....				10 00	8,043 70	329 10*	2,368 92	530 72	1,460 40	12,742 84
Connaught building.....					11,372 47	12,872 53	2,588 20	923 38	4,248 60	32,005 18
Huater building	13,944 90				16,259 33	29,806 79	4,595 52	1,110 16	3,733 35	69,450 05
City Post Office.....	11,899 12				6,636 08	157 53*	1,235 12	2,036 77	663 40	22,628 02
Grounds, including Major's Hill Park.....			4,056 53		747 50	4,062 86				8,866 89
Repairs and furniture.....		177,701 25			408,747 96					586,449 21
Steel fittings.....	75,082 61		88,500 00							75,082 61
Telephone service										88,500 00
Sites for new departmental buildings Wellington street west.....	1,854 07									1,854 07
Maintenance of acquired properties— Sussex street.....					1,528 75	1,395 29	237 14	534 23		2,924 04
Wellington street, east.....					750 00	2,070 13	3,109 53	12,482 59	444 17	3,591 50
" " west.....					10,525 62	38,324 92	205 41	109 67	236 00	64,886 83
Archives building					1,452 34	918 89				2,922 31
Astronomical observatory and Geo- detic building	1,682 76	939 13	3,219 24		3,249 60	3,149 53	613 34		93 00	12,946 60
Biological laboratory.....						994 62	139 75		50 55	1,184 92
Experimental Farm.....	84,642 27					10,080 00	1,956 05	4,228 80	2,198 90	103,106 02
Fuel testing plant.....					1,132 98	5,177 99	429 81	1,696 94	2,688 95	11,126 67
" " partial reconstruc- tion of ore dres- sing plant.....	5,999 70									5,999 70
Mines building (Sussex street).....					4,115 58	2,834 53	2,385 83	317 42	906 60	10,559 96
National Art Gallery.....	11,866 00		5,175 27		2,941 00					19,982 27
Printing Bureau, elevators, addi- tions, etc.....	121,932 39					24,266 43	6,737 45	3,574 25	3,189 62	159,700 14
Public Works, workshop.....					3,580 00	6,717 74	402 61	607 55	81 00	11,448 90
Rideau Hall.....		30,900 59				140 46		2,544 66		33,585 71

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Grounds, greenhouses, etc.....							13,743 55					13,743 55
Snow.....							4,957 12					4,957 12
Fuel and light.....							17,000 00					17,000 00
Watchman.....										695 00		695 00
Royal Canadian Mounted Police building.....	79,164 86											79,164 86
Royal Canadian Mounted Police temporary quarters.....	11,699 52											11,699 52
Royal Mint.....	16,050 90											33,510 47
Supreme Court.....										182 52	3,708 07	4,754 37
Victoria Island shipyard.....										418 26	170 03	2,404 23
Victoria Memorial Museum.....	34,248 99											76,274 79
Government's share of cost of paving Elgin street fronting Cartier sq. and Victoria Memorial Museum.												
Government's share of cost of paving St. Patrick's st. to Mackenzie avenue.....	2,602 43											2,602 43
Local improvements on Carling avenue opposite experimental farm.....	492 00											492 00
Departments Generally—Care and cleaning of departmental buildings including amount of \$100 to P. Snowden for firing noon gun	3,404 90											3,404 90
Sundry rented buildings.....												
							372,922 25					372,922 25
Totals, Ottawa buildings.....	2,397,461 12	209,540 97	713,472 03	40,245 15	77,611 61	38,969 59	518,159 31	584,198 74	713,472 03	509,573 96	209,540 97	5,117,100 74

*For total cost of heating each of these buildings see statement below.

Re CENTRAL HEATING PLANT AND BUILDINGS SERVED THEREBY

The operation of the Central Heating Plant is devoted entirely to the heating of the seven buildings named below and in the present statement the total cost of operation (\$273,538.36) is apportioned to each in the ratio of its cubic contents. To this there is added here some minor expenditure incurred for the salary of the engineer controlling the local distribution of steam, also purchase of grate coal, etc.

Name of Building	Heat from Central Heating Plant	Sundry other heating items	Total cost of heating each building
Parliament Building.....	126,513 88	4,679 67	131,193 55
East Block.....	41,724 45	4,140 79	48,865 24
West Block.....	43,737 63	4,694 93	48,432 56
Langevin Block.....	31,691 77	3,524 60	35,216 37
City Post Office.....	9,077 37	2,430 86	11,508 23
Supreme Court.....	8,973 43	1,938 22	10,911 65
Soldiers Civil Re-Establishment Building (Vittoria street).....	8,819 83	.....	8,819 83
	273,538 36	21,409 07	294,947 43

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents	Salaries and Supplies for Caretakers	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.									
Ontario									
Acton, post office, etc.		23 80		815 38	925 00	110 62			1,874 80
Alexandria, post office, etc.		475 45		791 26	633 85	236 13	11 63		2,148 32
Almonte, post office, etc.		119 06		873 31	800 16	352 91	75 00		2,220 47
Amherstburg, post office, etc.		350 75		737 97	369 34	76 82	105 00		1,639 88
Arnprior, post office, etc.		988 68		799 57	752 10	323 78	33 60		2,897 73
Athens, post office, etc.		241 30		67 40	584 56	145 20			1,038 46
Aurora, post office, etc.		433 14		823 91	509 50	33 65	16 00		1,816 23
Aylmer West, post office, etc.		362 73		856 44	649 90	186 91	36 81		2,092 79
Barrie, post office, etc.		133 67		866 39	586 95	156 20	50 00		1,793 21
Belleville, Canada Food Board			210 00						210 00
" income tax office			1,570 08						1,570 08
" post office, etc.	3,000 00	476 13		1,170 98	1,615 49	789 39	91 10		7,143 09
" weight and measures office			450 00						450 00
Blenheim, post office			200 00						200 00
Bowmanville, post office, etc.		145 27		889 70	438 88	121 68	37 98		1,633 51
Bracebridge, post office, etc.		15 57		769 98	814 18	101 73	9 60		1,711 06
Brampton, post office, etc.		134 26		739 68	739 00	116 17	69 48		1,798 59
Brantford, armouries	110 25								110 25
" post office, etc.	331 20	542 67		6,494 73	2,289 72	293 03	79 91	332 65	10,363 91
Bridgeburg, post office, etc.		92 06		855 33	624 45	112 91	25 00		1,739 75
Brighton, post office			130 94						130 94
Brockville, gas and electric inspector's office		177 08	90 00						267 08
" post office, etc.		1,412 76		1,318 53	988 30	566 30	180 63		4,466 52
" railway mail room			21 00						24 00
Burford, post office, etc.				849 58	583 08	111 39			1,544 05
Cardinal, post office		283 30		16 45	279 25	58 99	15 00		652 99
Carleton Place, post office, etc.		234 91		804 77	608 00	173 05	35 57		1,856 33
Cayuga, post office		22 05		309 65	97 80	109 90			539 40
Chapleau, post office			250 00						250 00
Chatham, post office, etc.		247 12		772 25	481 37	189 01	50 33		1,740 08
Chesley, post office, etc.		74 90		782 44	647 07	159 80	25 00		1,689 21
Clinton, post office, etc.		53 22		786 87	758 50	137 16	13 84		1,749 59
Cobalt, post office			2,000 00			91 76			2,091 76
Cobourg, post office, etc.		232 15		768 70	541 55	305 07	67 08		1,914 55
Collingwood, post office, etc.		643 44		1,357 92	1,530 00	179 95	99 92		3,811 23
Cornwall, post office, etc.		82 06		844 29	1,396 40	226 35	75 00		2,621 10
Deseronto, post office, etc.	1,271 88	18 40		875 16	675 00	307 72	39 00		3,187 16
Dresden, post office		219 00		769 98	7 50	109 39	16 11		1,181 98

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
PUBLIC BUILDINGS—Continued									
Ontario—Continued									
Dundas, post office.....	29 59	594 75		861 00	1,339 41	130 06	28 86		2,983 67
Eganville, post office, etc.....		39 05		794 26	491 92	204 96	34 00		1,564 19
Elmira, post office, etc.....		96 70		834 13	413 08	106 91	12 81		1,463 63
Elora, post office.....		19 27		816 08	501 50	74 41		8 50	1,419 76
Fessenden, post office.....				831 78	249 70	97 83	45 00		1,224 31
Fergus, post office.....		46 58		817 65	580 00	93 57	25 00		1,562 80
Fort William, examining warehouse, etc		835 42	86 00	3,773 10	1,645 50	281 11	162 00	198 00	6,981 13
“ income tax office			1,100 00						1,100 00
“ post office		1,041 53		921 90	1,367 00	327 42	90 00		3,747 85
Galt, post office, etc	163 45	296 50		876 05	726 97	141 98	48 98		2,253 93
Gananoque, custom house		633 57			417 50	55 92	18 12		1,125 11
“ post office, etc		465 16		1,073 28	710 25	154 85	34 04		2,437 58
Glencoe, post office, etc.....		424 87		814 69	595 69	152 22	15 00		2,002 47
Goderich, post office, etc.....		156 70		769 40	594 52	100 36	60 00		1,680 98
Grimsbury, post office.....		348 49		798 88	337 75	74 26	20 00		1,579 38
Guelph, post office, etc.....		211 51		952 78	1,226 66	201 86	53 80		2,646 61
Hamilton, gas and electric inspector's office.....		36 00	720 00		32 39	15 90			804 29
“ income tax office.....			1,750 00						1,750 00
“ post office, etc	1,826 67	428 07	141 82	11,838 88	3,929 13	459 52	1,513 55	56 25	20,193 89
“ postal station “B”	25,074 96	69 25				34 41	17 25		25,074 96
“ “B” (temporary).			1,375 00	80 00					1,575 91
“ railway mail room									100 00
“ weights and measures office			100 00						981 95
Manover, post office, etc		317 47	920 00	828 06	56 25	5 70			2,214 69
Harriston, post office, etc		65 98		597 95	907 51	123 65	38 00		1,700 26
Harrow, tobacco curing station	705 42				858 89	158 44	19 00		705 42
Hawkesbury, post office, etc		61 30		805 47	225 33	164 16	23 75		1,280 01
Hesperden, post office.....	9 24								9 24
Huntsville, post office.....			197 92						197 92
Ingersoll, post office, etc.....		344 30		863 60	1,006 85	135 02	43 04		2,392 81
Kapuskasing experimental farm	116 23				815 92				932 15
Kemptville, post office, etc.....		36 90		85 76	679 41	233 18			1,035 25
Kenora, post office, etc.....		122 02		859 29	1,143 01	436 53	89 50		2,650 35
Kincardine, post office		73 49		277 96	782 82	398 10	30 00		1,562 37
Kingston, custom house.....		980 77		1,048 57	723 00	178 46	62 16		2,992 96
“ immigration office		14 80	180 00		3 00	6 00			203 80
“ income tax office (Bibby B.).....		59 55	1,500 00	170 20		69 15	3 30		1,802 20

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Kingston, income tax office (McMahon bldg.).....	0 40	10 00	33 00	5 82	49 22
" " " (Northern Crown bank).....	71 04		2 00	6 40	79 44
" inland revenue office, etc.....	574 54	2,398 56	793 51	217 36	4,873 92
" post office, etc.....	1,708 13		965 57	492 14	4,318 58
" R. M. C. educational block.....					201,359 51
Kingsville, post office.....	201,359 51				2,011 26
Kitchener, examining warehouse.....	2,011 26				1,575 65
" (G.T.R. station mail room.....		1,440 00	120 00	6 32	50 00
" post office, etc.....	3 93	50 00			1,939 59
Lakefield, post office.....	73 71		862 11	195 06	1,567 68
Lansdowne, post office.....	36 00		802 28	168 85	25 00
Leamington, post office, etc.....		25 00			1,196 11
Lindsay post office, etc.....	12 01		719 98	198 32	2,344 11
Listowel, post office, etc.....	198 69		928 70	238 42	1,802 93
London, custom house, etc.....	211 08		811 86	118 88	4,667 44
" post office.....	739 14		2,115 42	335 41	10,975 48
" post office storage.....	59 15		3,712 03	577 42	80 00
L'Orignal, post office.....		80 00			125 00
Markham post office.....		125 00			896 75
Merrickville, post office.....	3 80		600 00	47 97	200 00
Midland, post office, etc.....		200 00			2,103 60
Mildmay, post office, etc.....	514 50		844 00	168 15	215 95
Milton, post office.....	4 50		67 35	33 39	1,498 64
Milverton, post office, etc.....	117 80		839 58	83 19	1,280 33
Mitchell, post office.....	5 46		690 45	126 93	1,597 04
Mount Forest, post office.....	170 45		785 98	69 66	1,214 44
Napanee, post office.....	42 15		459 10	198 01	2,075 31
Newmarket, post office, etc.....	220 92		894 81	205 92	1,386 72
Niagara Falls, post office, etc.....	33 40		829 51	55 85	2,326 42
North Bay, Angus Block, Hydro. Survey.....	203 53		908 11	108 13	360 00
" C.P.R. mail room.....		360 00			557 81
" McCool bldg., Hydro. Survey.....		557 81			120 00
" post office, etc.....	460 81		1,302 34	250 96	3,457 62
Norwich, post office, etc.....	2 75		726 65	82 20	1,636 40
Orangeville, post office, etc.....	31 85		1,088 65	65 25	1,640 93
Orillia, post office, etc.....	238 68		813 53	196 19	2,606 86
Oshawa, examining warehouse.....	19 05		140 10	4 25	618 89
" post office, etc.....	215 14		801 54	159 04	5,191 90
Owen Sound, post office, etc.....	606 50		1,093 12	121 36	3,016 19
Palmerston, post office, etc.....	182 17		796 36	171 18	2,043 90
Paris, post office.....	66 64		761 21	108 01	1,626 86
Parkhill, post office, etc.....	159 22		207 92	125 33	722 37
Pembroke, post office, etc.....	217 66		861 74	425 14	7,050 59
Perth, inland revenue office.....	5 95	447 75			453 70
" post office.....					4 24
Peterboro, custom house.....	775 61		796 90	121 19	2,247 70
" post office, etc.....	517 91		1,360 03	209 31	3,159 85
" weights and measures office.....		300 00			300 00
Petrolia, post office, etc.....	25 83		849 90	154 89	1,753 28
Picton, post office, etc.....	103 55		782 94	165 08	1,739 07

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Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

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"	examining warehouse	1,757 99	10,541 67	3,371 49	593 97	54 79	303 86	6,292 07
"	" 276 King St. W.	783 04	210 00	3,814 92	390 11	261 90	261 38	16,232 68
"	gas and electric office, 904 Queen St.				25 73			2,265 73
"	inland revenue building, 10 Toronto St.	807 07		1,086 50	308 32	40 97	67 05	2,367 49
"	Pacific B grain inspection		835 00					835 00
"	post office	1,371 74	290 20	13,083 49	7,706 12	683 54	541 70	33,117 12
"	taxes and repairs to buildings on site purchased for addition but still occupied by private tenants							
"	postal station "A", old C.T.R. station	1,310 25	2,400 00	55 20	527 06		251 45	9,039 72
"	" "A", new C.T.R. station	79 26		7 00	1,422 26		354 70	7,527 58
"	" "A", temporary	278 88		384 90	1,197 10	17 78	21 10	376,676 26
"	" "C"	574 96		557 90	241 90	60 54		1,941 67
"	" "D"	500 30		678 76	310 22	78 23		2,325 31
"	" "E"	87 57	2,122 05	21 13	296 97	16 96		2,444 64
"	" "F", etc	169 83	70 40	1,062 25	309 73	88 66		2,605 69
"	" "G"	404 87		895 91	333 59	42 08		2,826 05
"	" "H"	33 87	1,110 00	10 76	91 23			2,843 91
"	" "J"	409 98	1,500 00		56 91			1,271 11
"	" "K"	110 13		710 49	121 69	10 80		1,980 48
"	" "L"	529 41	1,750 00		229 94			1,788 12
"	post office garage, Richmond St	935 11	123 45	1,665 89	273 32	205 55	307 42	2,557 91
"	generally	276 78		882 00	490 19	75 00		3,646 24
Trenton, post office, etc.		147 14		590 22	143 18			70,035 36
Uxbridge, post office, etc.		17 25			262 83			1,982 30
Vineland, entomological laboratory	63 48							1,672 28
Walkerton, post office, etc.		32 80		528 00	200 00	31 00		63 48
Walkerville, post office, etc.		359 02		1,321 00	308 75	56 30		1,546 18
Waterloo, post office, etc.		87 00		1,047 71	127 33	49 44		3,385 98
Welland, post office, etc.	1,583 30	742 08		559 70	186 99	37 48		2,149 61
Whitby, post office, etc.		20 80		627 38	80 93	38 00		3,870 56
Warton, post office			1,674 30					1,631 36
Windsor, engineer's office (D.P.W.)					0 88			314 25
" post office, etc.		1,361 52		364 20	627 12	89 59		2,020 18
Wingham, post office	551 07	29 60		816 17	357 25	29 56		4,630 11
Woodstock, post office, etc.	5,033 84			853 51	133 28	39 20		2,080 53
Ontario generally, minor offices throughout the Province		2,813 48			1,219 50			7,283 08
Totals, Ontario (excluding Ottawa)	661,579 83	47,893 22	59,555 94	131,287 20	42,943 67	8,863 68	3,779 70	4,041 70
								1,167,562 20
Manitoba								
Brandon, examining warehouse			1,875 00	126 99	15 00			2,016 99
" experimental farm	5,164 70			1,421 21	371 40		35 20	6,992 51
" post office, etc.		1,480 75		1,333 07	1,494 93	165 20		5,680 90
Carman, post office		26 00		460 53	255 32	13 00		1,557 30
Dauphin, income tax office			360 00					360 00
" post office, etc.	3,533 20	309 92		854 55	514 32	54 59		6,017 43

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents	Salaries and Supplies for Caretakers	Heating	Lighting	Water	Power	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
PUBLIC BUILDINGS—Continued.									
Manitoba—Con.									
Emerson, immigration office.			267 33		521 49				788 82
" post office, etc.		510 10		758 20	836 25	11 85			2,116 40
Gimli, post office.			140 00						140 00
Le Pas, Lands office.			600 00						600 00
" post office.			600 00		109 50				709 50
Melita, post office.			174 17						174 17
Minnedosa, post office, etc.		493 05		985 23	922 97	168 00			2,569 25
Morden, experimental farm.					513 00	33 12			9,558 02
" post office, etc.	9,011 90	328 79		860 55	382 00	82 62			1,653 96
Neepawa, post office, etc.		193 65		872 42	387 31	163 40	32 10		1,648 88
Portage la Prairie, examining warehouse.			280 00			7 00	14 00		301 00
" armoury, etc.		547 35		603 70	825 13	75 35	105 10		2,156 63
" post office.	28,943 09	4,141 98		889 10	974 25	721 85	57 25		35,727 52
St. Boniface, post office.		249 87		833 60	1,032 44	44 55	21 18		2,181 64
Selkirk, post office.		46 14	165 00	1,019 96	809 77	57 28	35 36		1,968 51
Shoal Lake, post office.									165 00
Souris, post office, etc.		145 80		870 81	475 68	199 09	57 55		1,748 93
Stonewall, post office.		14 25		501 75	453 92	50 12			1,020 04
Transcona, post office.	71 18		470 00						470 00
Tressbank, entomological laboratory.									71 18
Virden, post office, etc.		307 88		869 95	725 54	62 95			1,966 32
Winnipeg, Advocate Bldg. (gas and electric insp.)		123 04	900 00	394 76					1,417 80
" Boyd Bldg. (archives, etc.)		23 63	1,730 00			9 00			1,762 63
" C.P.R. mail room.		195 69							195 69
" Chamber of Commerce Bldg. (In- terior Dept.)		58 37	3,320 00						3,378 37
" custom house, etc.	5,549 55	1,852 41		8,516 51	2,999 21	755 91	196 42	128 28	19,998 29
" examining warehouse.		2,176 10	23 20	9,145 65	9,020 55	129 97	724 76	145 74	21,365 97
" grain warehouse.		2,328 80			92 75				2,421 55
" immigration buildings.	1,598 94	1,554 93	37 52	3 35	4,882 53	528 28	357 71	147 13	9,110 39
" Notre Dame Investment Bldg. (D.P. W. and Inland Revenue)		174 50	2,836 94			20 50	1 52		3,033 46
" post office, etc.	10,192 50	6,846 12	111 00	13,354 81	10,591 14	3,011 56	841 38	566 14	45,514 65
Winnipeg postal station "A"	27,392 78	368 15		422 47		148 54	20 00	165 60	28,517 54
" "B"		781 25		1,995 81	1,409 72	110 92	137 46	7 39	4,442 55
" "C"		6 55	1,485 00	325 73	3 41	56 77			1,877 46
" "D"		91 17	1,600 00	409 39	375 81	56 70	13 58	1 40	2,548 05
" "F"		23 95	360 00						383 95

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" Scott block (food control, etc.)	4 00	1,980 00	94 87	1,984 00
" Tribune B. (Labour Dept.)	35 90	13,151 13	1 89	13,287 90
" Trust and Loan B. (Income tax office)	118 30	.....	.....	.....	.....	.....	.....	.....	120 19
" Union station mail room	387 81	2,416 00	.....	.....	.....	.....	.....	.....	2,803 81
" Victory B. (Labour Dept.)	20 00	900 00	.....	.....	.....	.....	.....	.....	920 00
" generally	212 63	65 00	.....	.....	.....	4,110 15	.....	.....	13,809 29
Manitoba Generally, minor offices throughout the Province	437 90	.....	.....	.....	.....	.....	.....	.....	437 90
Totals, Manitoba	26,616 73	35,847 29	91,457 84	55,815 51	42,540 72	13,363 21	2,848 16	1,196 88	269,686 34
Saskatchewan									
Pattlerford, post office, etc.	1,028 83	140 00	.....	906 75	917 05	663 99	109 49	.....	3,626 11
Big River, forestry office	76 48	.....	.....	.....	.....	.....	.....	.....	216 48
Estevan, immigration building	425 00	.....	.....	.....	.....	.....	.....	.....	425 00
" post office, etc	453 80	.....	.....	761 25	340 79	208 02	42 70	.....	1,806 56
Gravelbourg, post office, etc.	72 75	.....	.....	198 45	390 50	19 35	21 00	.....	702 05
Humboldt, post office, etc.	16 60	.....	.....	915 35	869 30	325 11	83 11	.....	3,129 50
Indian Head, experimental farm	.....	.....	.....	.....	1,886 23	375 65	328 96	.....	5,344 80
" fisheries inspector's office	.....	40 00	.....	.....	7 15	.....	.....	.....	47 15
" forest nursery station	20 57	.....	.....	.....	1,589 76	.....	.....	.....	1,610 33
" forestry office	33 45	43 00	.....	.....	.....	2 23	.....	.....	78 68
" Forestry Branch, Interior Departmental buildings	.....	.....	10,513 20	150 00	.....	48 74	154 66	.....	10,866 60
Kerrobert, immigration building	6 60	.....	.....	.....	.....	.....	.....	.....	6 60
Lloydminster, post office, etc.	1,037 09	881 97	.....	881 97	831 85	480 95	.....	.....	3,232 46
Maple Creek, post office, etc.	147 51	244 17	.....	244 17	417 75	118 25	119 50	.....	1,047 18
Melfort, post office, etc.	450 35	881 50	.....	881 50	699 40	352 96	238 47	.....	2,622 68
Moosejaw, C. P. R. station mail room	.....	198 17	.....	176 00	.....	.....	.....	.....	198 17
" Dom. Bank B. (Income tax office)	.....	1,500 00	.....	1,500 00	.....	.....	.....	.....	1,676 00
" post office, etc	1,304 10	300 00	.....	4,678 50	2,787 16	1,258 63	299 05	496 27	11,123 71
Moosomin, lands office	.....	240 00	.....	.....	.....	.....	.....	.....	240 00
North Battleford, immigration buildings	55 00	1 00	.....	1,313 14	234 06	39 00	26 05	.....	355 11
" post office, etc.	106 95	.....	.....	.....	975 70	403 93	322 80	.....	3,122 52
North Portal, immigration building	603 68	1 00	.....	.....	138 08	.....	.....	.....	742 76
Prince Albert, immigration building	.....	.....	.....	.....	315 00	26 23	.....	.....	341 23
" income tax office	11 06	.....	.....	.....	.....	.....	.....	.....	11 06
" post office, etc.	1,869 27	.....	.....	2,392 87	2,475 00	924 94	141 64	.....	7,803 72
Regina, Asst. Rec. Gen'l's office	1,054 15	.....	.....	2,114 53	668 50	538 42	51 81	234 51	6,608 46
" C. P. R. Station mail room	.....	130 50	.....	.....	.....	.....	.....	.....	130 50
" examining warehouse	858 70	.....	.....	822 65	737 67	144 44	19 02	41 03	2,623 51
" immigration building	0 50	.....	.....	.....	.....	.....	.....	.....	0 50
" inland revenue office	33 00	860 00	.....	.....	.....	16 51	.....	.....	909 51
" McCallum-Hill B. (Agriculture, etc.)	.....	700 00	.....	.....	.....	21 93	.....	.....	721 93
" post office, etc	936 57	.....	1,814 08	4,739 34	1,821 42	2,289 88	393 16	336 29	12,333 74
" postal station "A" (C. P. R. Station)	306 41	4,596 45	.....	9 85	.....	.....	.....	.....	4,912 71
" R.C.M.P. barracks	.....	1 00	16 00	.....	.....	.....	.....	.....	16 00
" Generally	266 11	.....	.....	.....	.....	180 25	.....	.....	447 36
Rosthern, experimental farm	.....	.....	7,425 39	.....	689 22	.....	.....	.....	8,114 61

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Salaries and Supplies for Carpenters.	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued									
Saskatchewan—Con.									
Saskatoon, Canada B. (Inland Revenue, etc.).		368 94	4,249 75			73 18			4,691 87
" " C.P.R. Station mail room.....		16 75	540 00						556 75
" " custom house.....		68 66	4,500 00			375 88			4,944 54
" " examining warehouse.....			1,730 00			13 36			1,743 36
" " forest nursery station.....		47 75			229 50				277 25
" " immigration building.....		34 69							34 69
" " lands office.....		375 50	3,000 00						3,375 50
" " post office.....	3,789 00	282 90		2,868 74	1,755 46	1,436 10	151 00	26 40	10,309 60
" " weights and measures office.			720 00						720 00
Scott, experimental farm.....	4,403 48				419 16	100 69			4,923 33
Sutherland forest nursery station		1,422 00			971 25				2,393 25
Swift Current, lands office.....		246 57	1,986 99						2,233 56
" " post office.....		49 90	2,211 33			401 89			2,666 12
Unity, immigration building.....		25 52	1 00						26 52
West Poplar immigration building					40 00				40 00
Weyburn, post office, etc.....		915 89		879 20	727 20	468 60	132 14		3,123 03
Yorkton, income tax office.....			720 00	192 00					912 00
" " post office etc.....		56 79		838 20	684 65	1,060 05	42 50		2,682 19
Saskatchewan, (Generally, minor offices throughout the Province.....		1,654 90				756 32			2,411 22
Totals, Saskatchewan.....	33,581 68	16,741 89	28,410 19	25,964 46	23,621 81	13,128 48	2,677 06	1,134 50	145,260 07
Alberta									
Athabaska, immigration building.....		55 00	15 00		197 50				267 50
" " post office.....		1,073 40	180 00		70 00				1,323 40
Banff, forestry office.....		60 00							60 00
Bassano, post office, etc.....	84 00	130 60		732 75	608 60	277 27	33 75		1,866 97
Calgary, Assistant Receiver General's office....		2,467 53	80 45	1,036 71	69 52	218 05	21 39		3,893 65
" " Blow building (irrigation, etc.)		1,725 59	11,607 64	896 71		425 34			14,655 28
" " Canada Life building (P.O. and I.R.).....		24 10	1,386 90	9 29		12 44			1,432 73
" " C.P.R. station, mail room.....		93 87	162 46						256 33
" " Craig building (Immigration and Colonization).....									
" " Dominion Bank building, forestry office		444 91	140 00			8 89			140 00
" " Examining warehouse.....		2,481 46	2,400 00			739 60	591 21	1,187 46	2,853 80
				7,420 16	1,636 47				14,056 36

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"	Herald building (Railway Commission)	3 00	1,735 00	120 00	29 40	13 43	18 58	1,751 43
"	Immigration building		137 50			36 35		204 33
"	Judge Travis building (Immigration)		26,717 52	2,464 56		6 90		144 40
"	Lancaster building (post office)	3,618 54				2,358 26	1 43	35,190 31
"	Leeson-Lineham building (Interior Department)		480 00					480 00
"	Moffat building (Interior Department)		300 00			1 89	3 80	305 69
"	post office (site)	571 96	1,229 08					1,801 04
"	Thomas building (Interior Department)		1,745 40			11 96		1,757 36
"	Travellers building (seeds office)	1,187 00	2,750 00			83 51	92 56	4,113 10
"	Woodcraft building (Irrigation Branch)	12 65	1,110 00			8 70		1,131 35
"	Generally					1,153 57		1,153 57
Coutts, immigration building			1 70					90 70
Edmonton, C.N.R. station, mail room	89 00		325 00					325 00
"	examining warehouse	4 25	4,320 00	3 00		19 09		4,394 86
"	immigration building	1,354 58	1 00		506 42	120 74	61 29	2,044 03
"	lands office	287 63	4,320 00	514 03		388 18		5,509 84
"	McLeod building (weights and measures office)		470 00					470 00
"	Mortlake building (P.O. Department)							
"	post office, etc.	184 10	5,700 00		1,970 71	46 62		8,707 36
"	Tegler building (forestry office)	1,512 91	222 05	9,516 90		1,982 10	152 16	16,720 84
"	South (Strathcona) post office	2,904 15	1,065 00	995 35	606 87	284 72	92 07	1,065 00
"	Generally					65 94		4,883 16
Edson, immigration building								65 94
(Grande Prairie, immigration building)			45 85		285 08			285 08
"	lands office	1,163 50		401 48	148 80		1 50	194 65
Croward, immigration building			240 00		450 91	80 25		2,097 64
High Prairies, lands office			720 00					240 00
Lacombe, experimental farm	9,001 36				863 20	290 76		720 00
Lethbridge, experimental farm	4,962 92				141 00	63 36		10,155 32
"	post office, etc.	205 42		4,888 30	1,462 25	1,023 38	193 70	5,167 28
Macleod, custom house	104 30				98 70	61 79	37 20	9,951 33
Medicine Hat, post office, etc.	101 55			2,001 10	360 71	477 44	158 48	301 99
Peace River (crossing, lands office)	754 42		720 00		212 80			3,099 28
"	immigration building		93 44		194 75			1,687 22
"	post office	17 45	335 09					288 19
Pincher Creek, forestry office	56 57		520 00					352 54
Red Deer, public building	8 00		1,051 70		483 50	29 13	39 00	576 57
Rocky Mountain, forestry office					60 19			12,749 01
Spirit River, immigration building			322 50		237 27			382 69
Vermilion, immigration building			5 00					242 27
Wainwright, immigration building			2 80					2 80
Wetaskiwin, post office		26 43						26 43
Alberta, generally, minor offices throughout the province		343 70		845 25	490 50	380 92	127 76	2,188 13
		898 06				242 30		1,140 36
Totals, Alberta	31,227 11	23,304 67	71,773 48	32,897 29	11,185 15	10,912 91	1,533 32	184,964 11

DEPARTMENT OF PUBLIC WORKS

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Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Salaries and Supplies for Caretakers	Heating	Lighting	Water	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PRINCIPAL BUILDINGS—Continued.									
<i>British Columbia</i>									
Agassiz, experimental farm	3,120 15				676 16	75 00			3,871 31
Alberta, post office, old		260 40	80 00	1,202 08	212 88	474 20	129 95		80 00
Asberott, public building		32 75		167 50	350 00	143 75			2,279 51
Atlin, post office, etc.			60 00						694 00
Bella Coola, naval service		4 48	30 00	5 30	138 50	3 00	12 00		60 00
Chase, public building		16 00		602 50	435 62	77 73	36 00		193 28
Chulitwak, post office		674 30		397 07	325 02	21 74			1,167 85
Comox, post office, etc.		261 12		1,119 58	982 90	465 07	72 23		1,418 13
Cranbrook, post office		239 05		827 44	265 63	311 52	60 00		2,900 90
Cumbecland, post office, etc.		328 00		979 77	684 00	290 68	30 00		1,703 64
Duncan, post office, etc.		40 85		1,209 79	428 00	213 35	54 50		2,312 45
Fortie, post office, etc.		105 00		919 37	893 72	167 60	75 00		1,946 49
Grand Forks, post office, etc.		51 65		897 94	633 99	185 81	78 00		2,160 69
Greenwood, post office, etc.		437 50							1,847 39
Hastings, immigration building	1,509 25				601 95				437 50
Invermere, experimental farm									2,111 20
Kamloops, Acadia Block—Interior Department			4,555 75						4,555 75
" forestry office	180 00								180 00
" transient building, post office (temporary)									
Lady-smith, post office		810 99	1,200 00	978 45	928 54	458 19	36 00		4,412 17
Nasas River, residence for fisheries overseer		414 97		805 62	229 50	56 18	33 00		1,569 27
Nanaimo, post office, etc.	1,700 00								1,700 00
Nelson, citizens office (D.P.W.)		876 43		1,842 03	877 20	670 50	36 00		4,302 16
" income tax office			480 00						480 00
" post office, etc.			216 00						216 00
New Westminster, Indian and Fisheries Branch		437 30	114 00	806 70	865 09	518 20	72 00		2,903 29
" post office, etc.		32 53		1,034 55	303 60	35 61	37 42		1,443 71
North Vancouver, post office		1,002 61	191 50	2,935 19	1,383 10	482 41	68 55	408 00	6,697 89
Pacific Highway, immigration office	226 50	390 50		934 15	424 00	157 68	10 80		1,917 13
Port Alberni, post office, etc.				15 95	147 20	63 37			226 52
Prince Rupert, examining warehouse		203 75		799 45	227 85	123 25	18 76		1,373 06
" Federal Block, post office, etc.		133 66	600 00	88 50		792 06	67 50		600 00
" fisheries office		19 60	850 00						9,530 72
" immigration building			5 00		551 50		13 75		850 00
Revelstoke, Canadian Bank of Commerce (Interior Department)		59 10	1,200 00						589 85
" post office		139 79							1,259 10
Rossland post office, etc.		319 70		1,366 00	1,187 81	283 60	86 17		3,243 28

Name of Building	(Construc- tion and Improve- ments)	Repairs and Furniture	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Pennic BUILDINGS Continued									
British Columbia (Continued).									
Salmon Arm, fire ranger's office			30 00		653 20	179 26			30 00 6,643 13
Sidney, experimental farm	5,810 67	16 30							16 30 6,431 80
Stewart, immigration building	6,131 05	82 60		264 50	300 75	125 28			833 13 6,176 99
Summerland, experimental farm		1,676 85		2,787 00	1,381 46	262 28	69 40		708 16 27 50 7 00
Union Bay, post office			706 50			1 66			
Vancouver, Assay office (old post office)			27 50						
" Birks, B. (Labour department)									
" Cotton bldg. (Agriculture department)									
" dredging office (D.P.W.)		7 00							
" Empire bldg. (Marine and Fisheries department)			540 00		3,744 94	248 89	130 60	543 00	555 84 15,716 92 71,243 77
" examining warehouse		6 49				9 35			
" Fairmont barracks (R.C.M.P.)	71,243 77	1,732 12	5 35	9,312 02					
" Fisheries office, 519 Pender st.		1 50							1 50
" fumigating shed, C.P.R. wharf.		148 05							148 05
" immigration detention building.		2,654 82		38 24	3,432 80	2,119 44	389 35	248 61	8,883 29 5,758 99 1,200 00 1,844 98 34,083 80 3,258 08 11,415 43 2,376 91 300 00 2,743 10 2,989 72
" London bldg., income tax office.						16 74			
" mail bag depositary		83 31	5,742 25						
" Pacific building, (Geological survey)	6,889 67	1,514 46	1,750 84	16,424 72	5,368 65	10 83	215 25	317 28	
" post office, etc., new		178 80	78 00			3,245 77			
" postal station "A" (C.P.R.)		263 59	3,079 28	2,423 53	1,452 86	75 45			
" "B"		264 40	7,200 00	1,200 14	836 97	50 30	25 10		
" "C"									
" "D"			300 00						
" Rogers Block (Fisheries insp.)		107 10	2,570 00	1,123 12	702 08	66 00			
Vernon, post office, etc.		650 31				472 96	41 25		
Victoria, Ames-Hollen building, (examining ware-		57 31	3,900 00	1,143 06	136 52	61 39	20 68	72 00	5,390 99
house)									
" astronomical observatory (Little									
Seatick Mountain)		2,212 18		1,659 65	342 61	1,021 79		264 86	5,501 09
" fumigating plant (C.P.R. wharf)			30 00						30 00
" hydro-survey			900 00						900 00
" immigration building.		1,002 75			950 09	207 52	209 14		2,309 50
" marine office (old custom house)		342 06		1,097 80	495 27	117 76	33 38		2,086 27
" meteorological observatory		809 26		1,183 40	335 34	175 89	25 73		2,529 62
" pilotage board				40 00	56 18	19 20			115 38
" post office, etc., new	2,672 47	912 19	269 00	14,650 28	4,497 99	2,818 01	107 16	821 10	26,748 23

"	"	"	(old), taxes due city for	1,610 73	303 77	397 70	199 01	88 87	157 04	2,787 12
"	1919	generally		274 59				24 01		298 60
Williams Head, quarantine station, land and new buildings										5,421 92
"			quarantine station, repairs to existing buildings.				7,237 33		1,114 38	11,129 94
"			quarantine station, water system	2,778 23						3,238 04
British Columbia generally, minor offices throughout the Province				1,511 07	74 45		7 50	10 34	6 00	1,612 36
Totals, British Columbia				26,916 17	46,614 42	73,770 09	46,246 06	17,499 55	3,572 09	326,927 48

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921—Concluded.

Name of Building		Construction and Improvements	Repairs and Furniture	Staff and Maintenance	Total
		\$	cts.	\$	cts.
Public Buildings					
Yukon Territory					
Heating, lighting, water, etc., for all buildings in Yukon Territory				39,432 35	39,432 35
Total, Yukon Territory				39,432 35	39,432 35
Generally					
Advertising coal tenders for Dominion buildings				3,736 92	3,736 92
Barracks for R.C.M.P., Arctic regions		352 27			352 27
Flags for Dominion public buildings				1,119 29	1,119 29
Post office fittings and supplies, stock stored at Toronto for distribution throughout the provinces		11,615 63			11,615 63
Printing, stationery, instruments, travelling, etc				26,740 79	26,740 79
Salaries of resident clerks of works, etc.				67,405 30	67,405 30
Totals, generally		11,967 90		99,002 30	110,970 20

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>Nova Scotia—</i>					
Abercrombie wharf (Pictou).....			60 50		60 50
Advocate, wharf.....			2,601 33		2,601 33
Argyle Sound.....	500 00				500 00
Arisaig, breakwater.....			1,477 18		1,477 18
“ wharf.....			437 63		437 63
Avonport, wharf.....			1,379 83		1,379 83
Baker's Point (Halifax), wharf.....			200 00		200 00
Bailey's Brook, extension to pier.....		375 37			375 37
Ballantyne's Cove.....	5,147 30				5,147 30
Barachois, protection works.....			199 72		199 72
Barrington Passage, wharf.....		4,169 10	20 63		4,189 73
Barrington's Cove, Sidney Mines, wharf.....			1,399 99		1,399 99
Bass River, new wharf.....		1,071 65			1,071 65
Battery Point, breakwater.....		778 81	149 00		927 81
Bayfield, breakwater.....			1,170 13		1,170 13
Bay St. Lawrence, opening channel..		250 22			250 22
Bear Cove (Digby), breakwater.....		532 99			532 99
“ (Halifax), skidway and shed.....		1,202 42			1,202 42
Belliveau's Cove, breakwater.....			800 00		800 00
Blandford, wharf.....			39 70		39 70
Bluff Head, breakwater.....			97 79		97 79
Boisdale, wharf.....		2,665 61			2,665 61
Breton Cove, wharf.....		270 47			270 47
Broad Cove Marsh, wharf.....			161 20		161 20
Burke's Head, retaining wall.....		398 99			398 99
Burlington Centre, wharf.....			1,572 69		1,572 69
Caldwell's Cove, breakwater.....			832 47		832 47
Canada Creek, wharf.....			148 81		148 81
Cap Rouge, breakwater.....			68 13		68 13
Caribou (Pictou), causeway.....			498 50		498 50
Chebogue Hr., digging channel.....		200 00			200 00
Chegoggin, rem. of gravel.....		249 87			249 87
Cheticamp Point, breakwater.....			499 45		499 45
Chimney Corner (Inverness), wharf..	2,731 20	2,697 83			5,429 03
Cow Bay (Port Morien), breakwater..			5,984 12		5,984 12
Cribbin's Point, wharf.....			300 02		300 02
Croft's Cove, wharf.....			240 77		240 77
D'Escousse, wharf.....			751 07		751 07
Devil's Island, breakwater.....			5,910 21		5,910 21
Digby, pier renewals.....			4,984 06		4,984 06
“ channel.....	37,695 46				37,695 46
“ Raquette.....	9,921 47				9,921 47
Drumhead, breakwater.....		1,322 30	1,177 70		2,500 00
Duncan's Cove, breakwater.....		72 63			72 63
East Jordan, breakwater.....			567 40		567 40
East End (Cripple Creek), Shelburne Co., protection wall.....			520 22		520 22
East Ferry, breakwater.....		1,400 00	28 90		1,428 90
East River (Pictou), lock and dam..				1,765 26	1,765 26
Eastern Passage, breakwater.....		3,835 56			3,835 56
Eatonville, breakwaters.....		3,479 54			3,479 54
Feltzen South, breakwater.....			1,198 05		1,198 05
Freeport, breakwater wharf.....			1,254 19		1,254 19
Fourchu.....	1,530 90				1,530 90
French River (Victoria Co.), protection works, etc.....		117 95	289 62		407 57
“ (Pictou Co.), new wharf.....		785 02			785 02
Friar's Head, harbour improvements		78 31			78 31
Fruid's Point, wharf.....			31 03		31 03
Garbarous, breastworks.....		2,038 21			2,038 21
Georgeville, wharf.....			592 05		592 05
Glace Bay, harbour improvements...	15,313 93				15,313 93
Goose Bay (Yarmouth Co.), wharf...			26 60		26 60
Grand Narrows, wharf.....			499 76		499 76
Granville Centre, wharf.....			853 40		853 40
Grosses Coques, renewal of sea wall..			1,461 55		1,461 55
Half Island Cove, breakwater.....			294 42		294 42

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
Nova Scotia—Continued					
Halifax Graving Dock...		25,636 18			25,636 18
" " Exchequer Court award.		1,545,137 35			1,545,137 35
" Harbour, to refund Messrs. Foley Bros., Welch, Stewart & Fau- quier amount of royalty paid by the Dept. of Public Works for filling taken from Halifax Hr. and used in connection with their contract for Ocean Terminal Docks.		12,004 05			12,004 05
Harbourville, breakwaters			797 87		797 87
Hiltz Narrows, breakwater (Topping).			805 38		805 38
Hubbard's Point, wharf.....			286 70		286 70
Hunt's Point, beach protection		600 59			600 59
Indian Brook Flats, wharf			185 90		185 90
Inverness, harbour improvements.	7,434 19	6,934 99			14,369 18
Iona, wharf (new).....			1,477 46		1,477 46
Irish Cove, wharf reconstruction.....		2,911 86			2,911 86
Jeddore, Oyster Ponds (Halifax Co.), wharf.....			700 00		700 00
Joggin's Mines, wharf.			249 82		249 82
Johnston's Hr., wharf			700 02		700 02
Kelly's Cove, breakwater...	778 15		3,785 22		4,563 37
Kempt Head, wharf..			69 96		69 96
Ketch Harbour, breakwater.....			566 38		566 38
Kraut Point, wharf...			98 85		98 85
Larry's River, breakwater.			927 71		927 71
Litchfield, groyne		2,178 35			2,178 35
Little Bass River, protection work..			1,070 15		1,070 15
Little Bras d'Or, breakwater.			349 98		349 98
Little Brook, breakwater.....			1,320 30		1,320 30
Little Narrows, wharf			298 34		298 34
Liverpool, channel.	31,988 24				31,988 24
Livingstone's Cove, wharf.....		2,698 69	250 00		2,948 69
Long Point (Craigmore), breakwater.			1,049 32		1,049 32
Lower L'Ardoise, breakwater			1,246 64		1,246 64
Lower Kingsburg, breakwater			249 00		249 00
Lower Plymouth, wharf.			412 13		412 13
Lunenburg.....	2,775 80				2,775 80
Mabou Harbour, jetties			1,597 50		1,597 50
Maitland Ferry, wharf..		2,190 40	427 87		2,618 27
Malignant Cove, wharf...			68 25		68 25
Marble Mountain, wharf			500 00		500 00
Margaree Island, breakwater..			373 10		373 10
" Hr., improvements	49,445 88		8,315 32		57,761 20
McKay's Point (Judique), breakwater			1,035 29		1,035 29
McNair's Cove, wharf...			1,331 41		1,331 41
Meat Cove, breakwater			146 44		146 44
Melbourne (Yarmouth Co.), wharf			190 83		190 83
Meteghan, breakwater extension		10,860 01			10,860 01
Middle South (Lunenburg).....	4,275 95				4,275 95
Mill Creek (King's Co.), wharf	37 50				37 50
Morden (King's Co.), breakwater.			499 96		499 96
Musquodoboit Harbour, wharf			162 09		162 09
Mulgrave, railway dock....	2,332 89				2,332 89
Neil's Harbour, breakwater wharf..			199 52		199 52
New Campbellton, wharf	4,807 70		1,099 93		5,907 63
New Harbour, breakwater.....			1,786 60		1,786 60
Newport Landing, wharf			173 57		173 57
North Ingonish, breakwater		109 25			109 25
North Sydney, wharf			237 24		237 24
Nyanza, wharf			99 80		99 80
Ogilvie's, breakwater.			2,265 87		2,265 87
Owl's Head, wharf			4,509 96		4,509 96
Oyster Pond, breakwater			1,438 54		1,438 54
Parker's Cove, breakwater.....			1,816 83		1,816 83

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts	\$ cts	\$ cts.	\$ cts	\$ cts.
HARBOURS AND RIVERS					
<i>Nova Scotia</i> —Continued					
Parrsboro, wharf.....			315 00		315 00
Petite Riviere (Lunenburg Co.), breakwater.....			192 46		192 46
Pictou Harbour, Abercrombie wharf (See Abercrombie)					
Pictou Harbour.....	4,857 15				4,857 15
Piper's Cove, wharf approach.....			345 16		345 16
Pleasant Bay (Inverness Co.), wharf			389 91		389 91
" Harbour, wharf.....			1,424 86		1,424 86
Point Tucker, ferry dock.....	455 20				455 20
Port Dufferin East (Halifax Co.), wharf.....			274 55		274 55
Port Beckerton, wharf.....			695 90		695 90
Porter's Lake, canal.....	698 00				698 00
Port George (Annapolis Co.), breakwater			1,653 38		1,653 38
Port Greville, beach protection.....			1,300 00		1,300 00
" breakwater.....			299 93		299 93
Port Hawkesbury, wharf.....			2,894 93		2,894 93
Port Hood, wharf.....			91 75		91 75
Port Joli (Queens Co.), wharf.....			82 42		82 42
Port Lorne, wharf.....			10,672 92		10,672 92
Port Maitland, breakwater.....		7,444 34			7,444 34
Portuguese Cove, breakwater.....			785 52		785 52
Port Wade, wharf.....			611 42		611 42
Poulamond, wharf.....			49 13		49 13
River John, wharf.....			30 00		30 00
Salmon River (Digby Co.), removal of boulders.....		34 33			34 33
Sanford, breakwater.....			2,488 07		2,488 07
Sandy Cove, breakwater.....		2,238 60	100 90		2,339 50
Saulnierville, breakwater.....			398 04		398 04
Saw pit, wharf.....			143 15		143 15
Scotch Cove (White point), breakwater			262 80		262 80
Seaforth, breakwater.....		75 61	15 08		90 69
Seaside, wharf.....			879 71		879 71
Sheet Harbour West (Halifax), wharf			450 90		450 90
Shelburne, wharf.....			52 01		52 01
Shenacadie, wharf.....		12,018 66			12,018 66
Short Beach, breakwater.....			237 39		237 39
Smiley's Point, breakwater.....			96 95		96 95
Sober Island, wharf extension.....		5,994 13			5,994 13
South Cove (Victoria Co.), wharf.....			270 00		270 00
South East Cove, Tancock Island, breakwater			60 00		60 00
South Gut (Victoria Co.), wharf.....			50 08		50 08
South Ingonish, beach protection.....			201 65		201 65
South Lake (Lakevalle), piers.....			1,181 10		1,181 10
Spencer's Island, breakwater.....			596 32		596 32
Spry Bay (Josie's), wharf.....			2,633 46		2,633 46
Spry Bay (Leslie's), wharf.....			106 62		106 62
Stoney Island, breakwater.....			64 31		64 31
Sugar Loaf (Cape North), wharf.....		568 50			568 50
Summerville, wharf.....			207 35		207 35
Sydney Harbour.....	8,165 45				8,165 45
Tennycapc, wharf.....			1,150 39		1,150 39
Terrance Bay, wharf.....			249 98		249 98
The Wharves, shore protection and breakwater.....			709 00		709 00
Three Fathom Harbour, breakwater..			961 27		961 27
The Points (See West Bay)					
Trenton (East River).....	6,891 28				6,891 28
Trout Cove, wharf.....			411 60		411 60
Upper Port Latour, wharf.....			1,049 44		1,049 44
Victoria Bridge (Cape Breton), wharf			70 85		70 85

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—Continued

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
Nova Scotia—Concluded					
Vogler's Cove, breakwater.....			125 00		125 00
" wharf.....			908 30		908 30
Wallace wharf.....			1,575 40		1,575 40
Walton (Hants Co.), breakwater..			64 09		64 09
Washabuck (Upper), wharf.....			247 80		247 80
Watt Settlement, wharf.....			250 10		250 10
Wedgeport, wharf.....			153 10		153 10
West Arichat, breakwater.....			2,889 08		2,889 08
" wharf.....			1,973 03		1,973 03
West Bay, "The Points", wharf.....			651 26		651 26
West Chezzetcook, breakwater			113 20		113 20
Westport, wharf.....			3,995 61		3,995 61
Whycocomagh, wharf.....			1,206 94		1,206 94
Windsor.....	480 50				480 50
Yarmouth Harbour, improvements....	45,761 65				45,761 65
Yarmouth Bar, improvements..		3,857 34			3,857 34
Young's Landing, wharf.....				564 66	564 66
Generally.....	2,172 87			2,162 78	4,335 65
Totals, Nova Scotia.....	246,198 66	1,671,486 08	137,613 44	4,492 70	2,059,790 88
HARBOURS AND RIVERS					
Prince Edward Island—					
Annandale, pier.....			2,324 97		2,324 97
Bay Fortune.....	11,209 19				11,209 19
Belfast, wharf.....			134 30		134 30
Belle River Harbour, breakwater...			114 42		114 42
Bonshaw, wharf.....			110 84		110 84
Cape Traverse, pier.....			1,512 58		1,512 58
Chapel Point, pier.....			129 59		129 59
Charlottetown.....	28,215 94				28,215 94
Georgetown, wharf... ..	2,573 64		56 27		2,629 91
Graham's Pond, breakwater...			1,415 26		1,415 26
Haggertie's wharf.....			414 20		414 20
Hickey's wharf..		3,160 43			3,160 43
Kier's Shore, pier.....			163 70		163 70
Miminigash Harbour, breakwater...		2,686 76			2,686 76
Murray Harbour, south pier....			266 16		266 16
North Lake boat harbour.		13,344 00			13,344 00
Pinette, ice break... ..		1,061 46			1,061 46
St. Mary's Bay, wharf			1,092 23		1,092 23
St. Peter's Bay, breakwater...			2,418 78		2,418 78
Souris Harbour, breakwater....		35,814 00			35,814 00
Southport, wharf.....			286 27		286 27
Steven's Pier (Montague River), pier.			118 48		118 48
Tignish Harbour, protection works .			1,283 08		1,283 08
Vernon River Bridge.....	22,227 25				22,227 25
Victoria, pier			1,973 57		1,973 57
West Point, wharf.....			996 52		996 52
West River (McArthur's Landing), wharf.....			709 28		709 28
Wood Islands, breakwater.....			601 68		601 68
Generally.....	1,086 43			2,158 78	3,245 21
Totals, Prince Edward Island.	65,312 45	56,066 65	16,122 18	2,158 78	139,660 06
New Brunswick—					
Back Bay, wharf.....		3,852 90			3,852 90
Bay du Vin, wharf... ..			680 92		680 92
Barker's (Sunbury Co.) wharf.			369 90		369 90
Bathurst Harbour, improvements ..	51,067 42				51,067 42
Black's Harbour, wharf (Charlotte Co.)			27 22		27 22
Black River (St. John), wharf.....			298 62		298 62

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>New Brunswick—Continued</i>					
Buctouche, channel.....	28,481 42				28,481 42
“ wharf.....			852 28		852 28
Burnt Church, wharf.....			16 00		16 00
Burton Court House, wharf.....			657 05		657 05
Campbellton, ferry landing.....			1,489 46		1,489 46
“ wharf.....			2,022 98		2,022 98
Cape Bald, breakwater pier.....			4,651 95		4,651 95
Caraquet wharf.....			248 47		248 47
Chatham.....	649 20				649 20
Chockfish, breakwater.....			791 16		791 16
Cocagne, wharf.....			1,680 46		1,680 46
Cummings Cove (Charlotte Co.), wharf.....			81 30		81 30
Dalhousie, deep water wharf.....			781 41		781 41
“ ferry wharf.....			268 36		268 36
Dover (Steeves Landing), wharf.....			59 67		59 67
Douglstown (Miramichi River).....	10 75				10 75
Edgett's Landing, wharf.....			912 60		912 60
Fairhaven, wharf (slip).....			123 56		123 56
Gautreau Village, wharf.....			218 42		218 42
Grande Anse, breakwater.....	369 07		79 58		448 65
Huestis Landing, wharf.....			62 10		62 10
Kouchibouguac, channel, etc.....	880 47	3,667 95			4,548 42
Leonardville, wharf (slip).....			439 77		439 77
Little Aldouane, wharf.....			680 12		680 12
Loggieville, wharf.....			631 23		631 23
Lord's Cove, wharf.....		140 24			140 24
Lower Newcastle, wharf.....			114 75		114 75
McAlister's, wharf.....			325 15		325 15
Mill Cove, wharf.....			594 54		594 54
Miramichi bay.....	162 20				162 20
Miramichi River (North West).....	7,407 47				7,407 47
Moncton, wharf.....			1,908 70		1,908 70
Newcastle.....	10,310 33				10,310 33
New Mills, wharf.....			775 82		775 82
North Head (Grand Manan Island), breakwater-wharf.....			5,256 15		5,256 15
Oak Point, wharf.....			30 51		30 51
Oromocto, wharf.....	35 34		99 68		135 02
Petit Rocher, breakwater.....			13,389 08		13,389 08
Quaco (St. Martin's), breakwater reconstruction.....		510 48			510 48
Renforth, wharf.....			41 00		41 00
Restigouche.....	197 75				197 75
Richardson wharf (slip).....			178 40		178 40
Richibucto Cape, completion of pier and breakwater.....	231 76	4,491 25			4,723 01
River St. Charles.....	243 00				243 00
River St. Louis (lower).....	19 50				19 50
Rothsay, wharf.....			103 55		103 55
St. Andrews, wharf.....			456 91		456 91
St. George, wharf.....			3,651 80		3,651 80
St. John Harbour improvements—					
Courtenay Bay.....		1,096,190 83			1,096,190 83
Dry Dock, subsidy.....				57,198 88	57,198 88
Long wharf.....	5,443 02				5,443 02
Negro Point, breakwater.....			4,674 79		4,674 79
St. John West, piers, sheds, etc.....	21,885 06	119,822 75	21,851 94		163,559 75
St. Louis, wharf.....			688 69		688 69
Scotchtown, wharf.....			801 95		801 95
Seal Cove, breakwater.....			132 62		132 62
Shippigan Gully, breakwater.....			10,420 84		10,420 84
Shippigan Harbour, wharf.....			135 75		135 75
Stonhaven, breakwater.....			1,411 09		1,411 09
Thomas Creek, breastwork.....			198 03		198 03
Tracadie, wharf.....			1,807 11		1,807 11

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>New Brunswick—Concluded</i>					
Tynemouth Creek, breakwater.....			54 46		54 46
Welchpool wharf slip			101 03		101 03
Wilson's Beach, breakwater wharf....		8,077 83			8,077 83
Young's Cove, (Queen's Co.), wharf.			94 50		94 50
Generally.....	2,172 87			3,342 76	5,515 63
Totals, New Brunswick.	129,566 63	1,236,754 23	87,423 43	60,541 64	1,514,285 93
Quebec—					
Amherst (Point Shea), Magdalen Isls., wharf.....			4,443 42		4,443 42
Anse a l'Eau (Tadoussac), wharf.....		6,022 23			6,022 23
Anse aux Gascons, wharf.....		156 50			156 50
Anse St. Jean, wharf.....			236 13		236 13
Aylmer, wharf.....			2,738 80		2,738 80
Baie St. Paul, wharf.....			599 47		599 47
Baie des Rochers, wharf.....			359 97		359 97
Barachois de Malbaie, wharf.....			1,770 68		1,770 68
Batiscan, wharf.....	35,935 97		1,324 08		37,260 05
Beauharnois.....	227 50				227 50
Beloeil, protection piers.....			8,276 90	164 48	8,441 38
Berthierville, wharf.....	40 50		65 00		105 50
Berthier (en bas), wharf.....			1,317 00		1,317 00
Bic (Pointe a Cote), wharf.....			480 90		480 90
" old wharf....			949 51		949 51
Buckingham (Labelle), wharf.....			1,979 98		1,979 98
Cabano, wharf.....			2,395 36		2,395 36
Cap a l'Aigle, wharf.....			18 30		18 30
Cap St. Ignace, wharf.....			379 56		379 56
Cap Sante, wharf.....			347 39		347 39
Cascades, pier.....			68 00		68 00
Caughnawaga, wharf.....			2,496 33		2,496 33
Champlain, wharf.....			25 00		25 00
Chandler, wharf.....			2,097 11		2,097 11
Chateauguay, shoal.....	127 00				127 00
Chicoutimi Basin, wharf.....		4,997 69			4,997 69
Chicoutimi, wharf.....			2,339 14	578 36	2,917 50
Cote Ste. Catherine, wharf.....			235 95		235 95
Coteau du lac, wharf.....			1,096 99		1,096 99
Coteau Landing, wharf.....			70 70		70 70
Contrecoeur, wharf.....			3,140 62	48 00	3,188 62
Cross Point, wharf.....	74 85		30 00		104 85
Descente des femmes, wharf.....			238 00		238 00
D'Israeli, wharf.....			140 15		140 15
Dodd's Landing (Labelle Co.), wharf.			5 00		5 00
Dorval.....	75 00				75 00
Doucet's Landing.....	11,964 41				11,964 41
Douglastown, breakwater.....			2,770 57		2,770 57
East Templeton, wharf.....			534 93		534 93
Echourie.....	453 50				453 50
Etang du Nord	323 40				323 40
Fabre, wharf.....		5,191 45	101 50		5,292 95
Fassett, wharf.....			661 33	21 00	682 33
Father Point, wharf.....			1,929 13		1,929 13
Fort Coulonge, wharf		1,015 11			1,015 11
Gaspe Basin, wharf.....			890 34		890 34
Gaspe, deep water wharf.....			721 21		721 21
Gatineau Point, wharf.....			81 63		81 63
Graham, wharf.....			224 87		224 87
Grand Entree, Magdalen Isls., wharf			10 00		10 00
Grand Nord (Berthier Co.).....	71 00				71 00
Grande Riviere (Gaspe), pier.....			9,841 22		9,841 22
Grondines, wharf.....			100 70		100 70
Grosse Ile (quarantine station), retaining wall .. .		1,708 67			1,708 67

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
Quebec—Continued					
Grosse Ile (quarantine station), wharves			5,468 10		5,468 10
Grosse Roche, wharf			291 20		291 20
Harricanaw River	6,544 57				6,544 57
Hontleur, wharf			252 75		252 75
Hull, wharf			398 44		398 44
Iberville, wharf	272 00				272 00
Ile aux Coudres, wharf			350 34		350 34
Ile du Pads Ile aux Castors	1,801 18				1,801 18
Ile Perrot (North), wharf			1,784 39		1,784 39
" (South), wharf			630 25		630 25
Ile Verte (Notre Dame des Sept Douleurs), eastern landing wharf		4,546 33			4,546 33
Ile Verte (Notre Dame des Sept Douleurs), western wharf		56 25			56 25
Jersey Cove	388 89				388 89
Lac Bourget (Laroche), wharf			136 18		136 18
Lac Megantic, wharf			117 00		117 00
Lanoraie, wharf			2,155 32	77 50	2,232 82
Laprairie, protection works		13,512 70		38 00	13,550 70
Lauzon, "Champlain" dry dock		41,703 39		7,446 31	49,149 70
Lauzon, "Lorne" dry dock				34,393 44	34,393 44
Lavaltrie, wharf			273 16	49 87	323 03
Les Eboulements, wharf			139 33		139 33
Levis, deep water wharf		208 00	1,265 91	1,600 00	3,073 91
L'Islet, wharf			500 00		500 00
Lotbiniere, wharf			73 75		73 75
Louiseville	166 45		1,023 34		1,189 79
Magog, wharf			402 98		402 98
Maguasha, wharf			510 86		510 86
Masson, wharf			131 50		131 50
Montmagny, wharf			4,384 04		4,384 04
Montebello, wharf			731 12		731 12
Mont Louis, wharf			1,225 89		1,225 89
Montreal, dry dock				105,000 00	105,000 00
Moose Bay, wharf			24 70		24 70
Murray, Bay, wharf	1,808 09		329 01		2,137 10
New Carlisle, wharf	128 10		49 37		177 47
New Richmond, wharf			173 05		173 05
Nicolet	208 50				208 50
" wharf (downstream)			547 11		547 11
" " (upstream)			136 08		136 08
Norway Bay (Ottawa River), wharf			206 47		206 47
North Timiskaming, wharf		13,042 43			13,042 43
Notre Dame de la Salette, wharf			117 68		117 68
Notre Dame des Sept Douleurs (See Ile Verte).					
Notre Dame des Quinze, wharf			261 36		261 36
Paspebiac, wharf			220 60		220 60
Perkin's Landing, wharf			292 50		292 50
Phillipsburg, wharf			1,722 59		1,722 59
Pierreville, wharf	10,909 65		176 00	15 00	11,100 65
Pointe a Brosseau	314 75				314 75
Pointe a Elie (Magdalen Islds.), break-water		2,829 45			2,829 45
Pointe a Pizeau (Sillery), wharf			12,999 50		12,999 50
Pointe aux Esquimaux, wharf			1,675 00		1,675 00
Pointe aux Trembles (Neuville), wharf			6,012 67		6,012 67
Pointe Cavagnole, wharf			264 42		264 42
Pointe Dansereau, wharf			203 75		203 75
Pointe Madeleine, wharf			248 74	675 00	923 74
Pointe Piche (Timiskaming), wharf			595 32		595 32
Port Alfred	53,515 31				53,515 31
Port au Persil, rem. of boulders		365 13			365 13
Port Daniel, wharf			948 06		948 06
Port Lewis, wharf			73 93		73 93

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>Quebec—Continued.</i>					
Portneuf (Saguenay), wharf			328 26		328 26
Quebec Harbour (River St. Charles) ..		80,443 48	14,817 36		95,260 84
Quyon, wharf			63 62		63 62
Repentigny, wharf			123 00		123 00
Rigaud, old crib wharf			98 00		98 00
" wharf at village			39 50		39 50
Rimouski, harbour improvements ..		12,955 84	383 29	1,078 61	14,417 74
Riviere aux Vases (Chicoutimi), wharf ..		1,749 43			1,749 43
Riviere Blanche, removal of boulders ..		373 82			373 82
Riviere des Vases (Temiscouata), wharf ..			173 55		173 55
Riviere du Lievre, lock and dam		123 41		2,410 73	2,534 14
" wharf			58 50		58 50
Riviere du Loup (en bas), wharf			3,798 12		3,798 12
" (en haut). <i>See Louiseville.</i>					
Riviere Grande Cascapedia	1,621 08				1,621 08
Riviere Ouelle, wharf			1,193 21		1,193 21
Riviere Pentecote	100 75				100 75
Riviere St. Maurice	13,125 20				13,125 20
Roberval, wharf			1,398 66		1,398 66
Ruisseau Leblanc, wharf			582 50		582 50
St. Alphonse de Bagotville, wharf			4,909 02		4,909 02
Ste. Anne de Beaupre, wharf		28,365 28			28,365 28
Ste. Anne de Bellevue, wharf			436 07		436 07
Ste. Anne de Chicoutimi, wharf			401 15		401 15
Ste. Anne de la Pocatière, wharf			509 50		509 50
Ste. Anne de Sorel, wharf			2,527 40		2,527 40
St. Antoine de Richelieu, wharf			201 46		201 46
St. Charles de Richelieu, wharf			760 98		760 98
St. Denis de Richelieu, wharf	4,846 08		1,300 21		6,146 29
Ste. Emelie (Leclercville), wharf			40 60		40 60
Ste. Famille (Ile d'Orleans), wharf		16,999 77	25 00		17,024 77
St. Francois du Lac, wharf			135 00		135 00
St. Francois, Ile d'Orleans (north side), wharf			51 90		51 90
St. Francois, Ile d'Orleans (south side), wharf ..			32,997 76		32,997 76
Ste. Genevieve de Batiscan, wharf			2 40		2 40
St. Irene les Bains, wharf			834 15		834 15
St. Jean (Ile d'Orleans), wharf			29,166 00		29,166 00
St. Johns, guide piers			1,445 87	71 89	1,517 76
St. Joseph de Sorel, ice breaker		3,067 22			3,067 22
St. Laurent (Ile d'Orleans), wharf			20,779 58	13 50	20,793 08
St. Marc, wharf		3,787 70			3,787 70
St. Michel de Bellechasse, wharf			9,151 33		9,151 33
St. Nicholas, wharf			577 05		577 05
St. Ours (Riv. Richelieu), wharf	145 50		186 43		331 93
St. Paul (Ile aux Noix), wharf			3,016 93		3,016 93
St. Pierre les Becquets, wharf			57 76		57 76
St. Roch des Aulnaies, wharf			150 00		150 00
St. Roch de Richelieu, wharf			611 82	61 80	673 62
St. Simeon, wharf			76 57		76 57
St. Sulpice, wharf			22 00		22 00
Ste. Victoire, wharf			98 49		98 49
St. Zotique, wharf			114 00		114 00
Sorel, removal of old Pontbriand wharf ..		902 45			902 45
Sorel, wharf		12,374 50	39 00		12,413 50
Tadoussac Harbour, wharf			259 13		259 13
Three Rivers, wharf	1,936 13		14,513 12		16,449 25
Thurso, wharf			98 77		98 77
Trois Laes, wharf			888 15		888 15
Valleyfield, wharf			229 23		229 23
Varennnes, wharf			531 35		531 35
Vaudreuil, wharf	31,155 78		242 59		31,398 37
Vercheres, wharf			138 40	207 78	346 18

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>Quebec—Continued</i>					
Verdun, wharf.....	1,498 30		252 63		1,750 93
Ville Marie, wharf.....			418 72		418 72
Yamaska, lock and dam.....				832 90	832 90
Generally.....	9,706 87			37,834 83	47,541 70
Totals, Quebec.....	189,486 31	256,498 23	258,311 72	192,619 00	896,915 26
<i>Ontario—</i>					
Arnprior, wharf.....			57 97	22 50	80 47
Bare Point, breakwater (Port Arthur).....		298,714 56			298,714 56
Barry's Bay, wharf.....			21 92		21 92
Bayfield, pier.....			555 09		555 09
Beaumaris, wharf.....			69 63		69 63
Beaverton, breakwater.....			883 10		883 10
Belle River, harbour works.....	400 00		1,699 90		2,099 90
Belleville, wharf re lighting system.....			1,594 24		1,594 24
Blind River, wharf.....			1,944 68		1,944 68
Bowmanville.....	15,044 26				15,044 26
Brockville, wharf.....			129 27		129 27
Bronte, pier.....		2,011 15			2,011 15
Burk's Falls, wharf.....			3,331 00		3,331 00
Burlington Channel, bridge.....				5,838 44	5,838 44
" pier.....			16,684 53		16,684 53
" removal of debris.....		150 00			150 00
Charlton, wharf.....			144 30		144 30
Cobourg, piers.....	9,957 21		13,138 86		23,096 07
Collingwood, breakwater reconstruction.....		23,553 99			23,553 99
" graving dock No. 1.....				15,000 00	15,000 00
" graving dock No. 2.....				9,208 96	9,208 96
Collins Bay.....	51 00				51 00
Connaught station, wharf.....		1,345 56			1,345 56
Cumberland, wharf.....			180 44		180 44
Depot Harbour, wharf.....			19,113 28		19,113 28
Erieau, pier.....	3,199 52				3,199 52
Fighting Island, Detroit River.....	168 50				168 50
Fort William, harbour improvements.....	\$246,669.50				
Less.....	75,000.00				
		171,669 50			171,669 50
French River, dams.....			3,194 48		3,194 48
Gananoque, wharf.....			41 16		41 16
Goderich, docks.....			321 52		321 52
Grand Bend, piers.....			2,291 96		2,291 96
Haileybury, dockyard.....			278 97		278 97
" wharf.....			996 27		996 27
Hawkestone, wharf approach.....			92 30		92 30
Hilton, wharf.....			505 58		505 58
Holland River, wharf approach.....			394 00		394 00
Huntsville, wharf.....			3,076 65		3,076 65
Jeannette's Creek.....	37,036 78				37,036 78
Kagawong, wharf.....		12,046 92			12,046 92
Kenora, wharf extension.....		2,756 01			2,756 01
Kincardine, pier.....	3,538 00	450 93	149 50		4,138 43
Kingston, harbour improvements.....	5,084 43	1,581 83			6,666 26
" maintenance and operation of combined roadway, wharf and bridges.....				9,261 82	9,261 82
" removal of temporary bridge.....		2,674 50			2,674 50
" R.M.C. dock.....			710 56		710 56
Kingsville, piers.....	16,243 11		6,703 29		22,946 40
Leamington, pier.....			9,192 42		9,192 42
Little Current, rebuilding wharf.....		23,989 98			23,989 98
L'Orignal, wharf.....		4,345 11			4,345 11
Lorrain (Paradis Bay), wharf.....			283 38		283 38

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts	\$ cts	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
Ontario—Concluded.					
MacLaren's Landing, wharf		237 87			237 87
McGregor's Creek, revetment wall....			384 43		384 43
Marksville, wharf.....			60 93		60 93
Meaford, revetment wall.....			504 68		504 68
Monetville.....	82 05				82 05
Montreal River (Latchford), dam..			176 25	2,918 00	3,094 25
New Liskeard, wharf			828 23		828 23
North Bay, wharf			746 37		746 37
Oakville.....	10,874 97				10,874 97
“ east pier.....			152 15		152 15
Oliphant, wharf.....			161 65		161 65
Owen Sound, wharf.....		11,717 05			11,717 05
Parry Sound, renewals of breastworks at Two and Seven Mile Narrows			1,206 54		1,206 54
Parry Sound, wharf.....			981 66		981 66
Pembroke, wharf.....			422 06		422 06
Pelee Island, piers.....	435 30		8,123 14		8,558 44
Penetanguishene, wharf			1,238 77		1,238 77
Petawawa, wharf.....			22 78		22 78
Pike Creek, harbour walls.....			1,199 70		1,199 70
Point Edward.....	2,547 60				2,547 60
Port Arthur, dry dock.....				37,741 50	37,741 50
“ (Bare Point) harbour im- provements.....	42,873 65	3,294 11			46,167 76
Port Burwell, pier.....	38,803 44		7,543 42		46,346 86
Port Colborne, breakwaters.....			13,142 86		13,142 86
Port Dover, piers.....			19,786 83		19,786 83
Port Elgin, wharf.....			8 40		8 40
Port Hope, piers.....	6,665 33		8 10		6,673 43
Portland, wharf.....			202 77		202 77
Port Rowan, pier.....			1,499 31		1,499 31
Port Stanley, harbour improvements..	26,759 47	1,975 98	18,010 30		46,745 75
Presqu'Isle Harbour (Grey county)...	100 00				100 00
Providence Bay, wharf.....			103 30		103 30
Puce, harbour works.....			799 58		799 58
Richard's Landing, wharf.....			242 44		242 44
Rondeau Harbour, protection work, etc.		4,611 51	11,271 85		15,883 36
Rosseau, wharf			976 46		976 46
Running Creek.....	2,500 00				2,500 00
St. Williams, wharf.....			38 53		38 53
Sault Ste. Marie, harbour improve- ments.....	3,183 43		6,311 78		9,495 21
Sheguindah, wharf.....			273 95		273 95
Silver Centre, wharf.....			783 74		783 74
Southampton, breakwater.....			5,010 12		5,010 12
Sturgeon Falls, revetment wall.....		1,568 80			1,568 80
Sturgeon Point	140 00				140 00
Sydenham River.....	2,433 23				2,433 23
Thessalon, wharf reconstruction.....		97 20			97 20
Tobermory, glance booms.....			184 26		184 26
Toronto, harbour improvements—					
Canadian-Stewart contract.....		92,790 32			92,790 32
Roger Miller contract.....		1,503,477 71			1,503,477 71
Eastern channel, east pier.....		12,597 47			12,597 47
“ west pier.....		3,226 57			3,226 57
Western channel, south pier.....			1,260 06		1,260 06
Fisherman's Island (new building)		77 55			77 55
Queen's wharf.....				50 00	50 00
Toronto Island, breakwater protection		37,284 31			37,284 31
Trent and Newcastle district works				52 50	52 50
Wellington.....	391 62				391 62
Wendover, wharf.....			92 00		92 00
Wheatley, pier.....			2,099 80		2,099 80
Whitby.....	4,689 40				4,689 40
Windsor, dock.....			924 63	1,770 00	2,694 63
Generally.....	9,706 87			17,495 40	27,202 27
Totals, Ontario.	242,909 17	2,219,246 49	194,564 98	99,359 12	2,756,078 86

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>Manitoba—</i>					
Assiniboine River (High Bluff), bank protection.....		316 25			316 25
Big George Island.....	12,572 70				12,572 70
Big Island (Hecla), wharf.....		3,042 16			3,042 16
Dauphin River, wharf.....		7,581 79			7,581 79
Delta, protection works ..		3,543 67			3,543 67
Gimli, wharf.....			3,000 02		3,000 02
Killarney, dam, etc. ..			1,143 59		1,143 59
Le Pas, wharf.....	14,110 19	9,406 18			23,516 37
Mossy River, channel...	12,492 10				12,492 10
Red River, channel protection.			7,537 45		7,537 45
“ mouth.....	7,981 16				7,981 16
St. Andrews Rapids, lock and dam...	2,189 91			22,787 64	24,977 55
Selkirk, middle ground..	8,603 07				8,603 07
“ slough...	2,221 64				2,221 64
“ wharf and slip.....			2,910 44	4,252 57	7,163 01
Victoria Beach, breakwater.			500 56		500 56
Wanipigow River, removal of ledge...		226 48			226 48
Winnipeg.....	8,378 75				8,378 75
“ Beach.	4,157 64				4,157 64
Generally.....				7,033 25	7,033 25
Totals, Manitoba.	72,707 16	24,116 53	15,092 06	34,073 46	145,989 21
<i>Saskatchewan and Alberta—</i>					
Lesser Slave River, removal of obstructions.....		978 47			978 47
Generally.....				442 73	442 73
Totals, Saskatchewan and Alberta		978 47		442 73	1,421 20
<i>British Columbia—</i>					
Ainsworth, wharf ..			161 34		161 34
Albion, wharf....			344 31		344 31
Alice Arm (Silver City), landing float.		401 85			401 85
“ road..		141 92			141 92
Argenta, wharf.			433 66		433 66
Arrow Park, wharf.....			623 08		623 08
Bamfield, wharf, etc.....			2,046 31		2,046 31
Barnston Island, wharf....			321 00		321 00
Beaton, wharf.....			708 42		708 42
Bold Point, float.....			158 37		158 37
Boswell, floating wharf.....		75 65			75 65
Brownsville (Fraser River), wharf....			603 35		603 35
Burton, wharf.....		717 09			717 09
Cadboro Bay, dolphin.....			294 50		294 50
Campbell River, wharf.....			15,838 30		15,838 30
Capilano, training dams.....			325 70		325 70
Carroll's Landing, wharf.....		142 04			142 04
Chemainus, Victoria Lumber Co.....	4,276 90				4,276 90
“ boat landing.....			667 28		667 28
Chilliwack, Lower Landing (Shed)....			531 28		531 28
Church House, wharf.....		2,398 31			2,398 31
Clayoquot, wharf.....			2,690 68		2,690 68
Coal Harbour, wharf.....			30 00		30 00
Columbia River, Two Beacon Bar....	4,667 54				4,667 54
“ Cottonwood dam...		178 61			178 61
“ dam between Arrow					
“ Lakes.....		823 16			823 16
“ Snagging above					
“ Arrow Head ..		93 65			93 65
“ below Burton, ma-					
trassing.....			6,951 42		6,951 42
Cottonwood point.....	11,115 87				11,115 87
Courtenay River, bank protection.....		896 99			896 99
Cowan's Cove, wharf.....			372 50		372 50
Craeroft, wharf.....		448 36			448 36

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS					
<i>British Columbia—Continued</i>					
Crescent Bay, wharf.....			210 10		210 10
Crofton, wharf.....			4,112 50		4,112 50
Deer Park, wharf.....			635 06		635 06
Deep Cove, wharf.....			1,255 12		1,255 12
Degnan's Bay, float.....			1,101 39		1,101 39
Denman's Island, float.....		975 97			975 97
Dewdney, wharf.....			315 63		315 63
Digby Island, wharf.....			1,176 75		1,176 75
East Arrow Park, wharf.....			355 02		355 02
Edgewood, wharf.....			1,924 22		1,924 22
Egmont, float.....			112 93		112 93
Esquimalt, new dry dock.....		13,536 89			13,536 89
“ old dry dock.....				22,248 00	22,248 00
Farmer's Landing, wharf.....			15 00		15 00
Fernwood, wharf.....			1,026 20		1,026 20
Fraser's, wharf.....			613 63		613 63
Fraser River improvements—					
Ballantyne pier.....	6,842 12				6,842 12
Bucklin Lumber Co.....	896 54				896 54
Celtic Cannery.....	3,127 98				3,127 98
Chilliwack, removal of snags above.....		2,536 78			2,536 78
Ladner channel.....	8,365 04				8,365 04
Nicomien, dams.....		175 73			175 73
“ Island, improvements.....		8,796 80			8,796 80
North Arm.....	97,379 26				97,379 26
Sandheads.....	49,720 72				49,720 72
Snagboat Samson.....				24,870 05	24,870 05
Steveston Jetty.....	1,651 48				1,651 48
Woodward Slough.....	34,526 11				34,526 11
Gibson Landing, wharf.....			2,399 90		2,399 90
Gibson Shoal, passage.....	22,231 40				22,231 40
Gower Point, float.....		1,755 10			1,755 10
Grace Harbour, float.....			196 00		196 00
Graham, wharf.....		11,454 88			11,454 88
Grantham's Landing, wharf.....			1,346 90		1,346 90
Grey's Creek, wharf.....			320 62		320 62
Haleyon, wharf.....		1,297 70	264 22		1,561 92
Hardy Bay, wharf.....			1,406 08		1,406 08
Harrop, wharf.....			749 05		749 05
Hatzic, wharf.....			594 37		594 37
Hollyburn, wharf.....			6,435 63		6,435 63
Hope Bay (Pender Island), wharf.....			13 50		13 50
Hopkin's Landing, wharf.....			1,499 95		1,499 95
Howe Sound, Shoal Passage.....	148 20				148 20
Hurst wharf, landing float.....		798 48			798 48
Irvings Landing, float.....			598 67		598 67
Jackson Bay, float.....		1,365 98			1,365 98
Jericho Beach, Air harbour.....		34,790 49			34,790 49
Johnson's Landing, wharf.....			120 05		120 05
Kincolith, wharf.....			293 69		293 69
Kokanee, wharf.....			469 16		469 16
Kuskanook, wharf.....		4,154 27			4,154 27
Ladysmith, wharf.....		151 13			151 13
Lloyd Point, float.....			129 75		129 75
Long Bay, float (See Wolfsohns Bay)					
Long Beach, wharf.....			384 00		384 00
Lyall Harbour, Saturna Island, wharf.....		4,859 41			4,859 41
Land, wharf.....			473 75		473 75
Magar's Landing, wharf.....			15 00		15 00
Manson's Landing, wharf.....		83 64	201 95		285 59
Matsqui, wharf.....			472 60		472 60
Mayne Island, wharf.....			4,471 62		4,471 62
McDonald's Landing, wharf.....			480 01		480 01
Mill Bay, wharf.....			1,481 29		1,481 29
Millers Landing, wharf.....			246 20		246 20

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
HARBOURS AND RIVERS	\$ cts	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>British Columbia—Continued</i>					
Mirror Lake, wharf			742 85		742 85
Moresby Island, wharf.			4,635 94		4,635 94
Naas River.	7,220 31	9,380 66			16,600 97
Nahun, wharf.			119 90		119 90
Nanaimo.	8,561 68				8,561 68
Naramata, wharf.		2,449 83			2,449 83
Needles, wharf.			1,269 90		1,269 90
New Westminster, wharf.			487 75		487 75
Nootka Island, wharf			3,901 36		3,901 36
Okanagan Centre, wharf			657 71		657 71
“ River, protection works.			4,299 06		4,299 06
Peachland, wharf.			373 89		373 89
Pender Harbour, float.		1,197 16	201 24		1,398 40
Port Alberni, new floats, etc.		1,994 20			1,994 20
Port Clements, wharf.			1,031 57		1,031 57
Port Essington, landing float.		233 33			233 33
Port Haney, wharf.			379 50		379 50
Port Moody, wharf			1,677 77		1,677 77
Powell River, addition to wharf.	53,088 44	10,193 49			63,287 84
Prince Rupert, floating dock.				76,970 88	76,970 88
“ quar. station wharf		588 68	2,517 41		3,106 09
Princess Creek, floating wharf.		6,389 18			6,389 18
Proctor, floating wharf.		6,999 60			6,999 60
Queens Bay, wharf.			121 91		121 91
Queen Charlotte City, wharf.			1,079 95		1,079 95
Refuge Bay, wharf.			2,244 57		2,244 57
Renata, wharf.			482 49		482 49
Robert's Bay, float.			86 33		86 33
Robert's Creek, wharf.			1,128 45		1,128 45
Roy, float.			53 15		53 15
Royston, wharf.			4,152 68		4,152 68
Russell's wharf (Kootenay).			687 79		687 79
Saanichton, wharf.			1,548 44		1,548 44
Salmon River, wharf.			1,483 36		1,483 36
Sandspit Point, wharf reconstruction		102 03			102 03
Saturna Island, wharf.			8 00		8 00
Savary Island, wharf.			1,873 50		1,873 50
Sidney, wharf.	5,123 80		696 53		5,820 33
Skeena River.	11,989 37				11,989 37
Skidegate, wharf.			662 18		662 18
South Gabriola Island, wharf		2,123 84			2,123 84
Spiller River, wharf.			59 00		59 00
Squamish, wharf.			146 46		146 46
Stag Bay, float.		1,241 63			1,241 63
Stewart, wharf.		30,550 07			30,550 07
Stickine River, removal of obstructions		9,440 48			9,440 48
Sturdies Bay, wharf.			1,401 70		1,401 70
Syringa Creek, wharf.			142 50		142 50
Thetis Island, wharf.		8,507 71			8,507 71
Tofino, wharf.			361 59		361 59
Tucker Bay, float.			1 50		1 50
Ucluclet, wharf.			3,553 35		3,553 35
Union Bay, wharf.			125 00		125 00
Valdez Island, float.			410 00		410 00
Van Anda, wharf.			271 14		271 14
Vesuvius Bay, wharf.			1,400 21		1,400 21
Victoria, harbour improvements.	11,347 69		2,750 00		14,097 69
Westbank, wharf.		3,300 42			3,300 42
West Demars, wharf.			505 28		505 28
White Rock, wharf.			254 52		254 52
William's Head, quar. sta. wharf.	13,142 47		300 00		13,442 47
“ quar. sta. coal wharf.			5,480 40		5,480 40
Williamson's Landing, float.			169 44		169 44

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
HARBOURS AND RIVERS— <i>Con.</i>	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Willow Point, float.....			691 78		691 78
Wilson's Landing, wharf..			459 95		459 95
Wolfsohn's Bay (Long Bay) float...			67 75		67 75
Wyatt Bay, float			10 30		10 30
Generally.....	6,159 15.			14,177 09	20,336 24
Totals, British Columbia..	361,582 07	187,749 10	128,186 06	138,266 02	815,783 25
GENERALLY					
General expenses of staff...				12,981 10	12,981 10
Salaries of district engineers, assistants, etc.....				491,516 03	491,516 03
Test borings for sundry projected works		15,008 17			15,008 17
Totals, harbours and rivers, generally.		15,008 17		504,497 13	519,505 30

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Construction and Improvements	Repairs	Staff and Maintenance	Total
DREDGING PLANT	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Maritime Provinces		65,388 44		65,388 44
Ontario and Quebec	6,502 65	54,126 96		60,629 61
Manitoba, Saskatchewan and Alberta		6,488 22		6,488 22
British Columbia.....		15,974 18		15,974 18
Totals, Dredging Plant	6,502 65	141,977 80		148,480 45
ROADS AND BRIDGES				
<i>Maritime Provinces</i>				
Grand Etang bridge, N.S.		224 13		224 13
St. Leonard bridge		3,284 69		3,284 69
Edmundston International bridge	3,132 56			3,132 56
<i>Quebec and Ontario—</i>				
Burlington channel, new bridge	31,417 42			31,417 42
Bryson, bridge		190 90		190 90
Chapleau, bridge		131 50		131 50
Des Jochims, bridge		1,007 03		1,007 03
North Timiskaming bridge	14,098 45			14,098 45
<i>Ottawa city, bridges and streets maintained by Government</i>				
Connaught Place and Wellington st			6,178 57	6,178 57
Laurier bridge		1,380 79		1,380 79
New Chaudiere bridge	23,853 53			23,853 53
Lighting all above			1,772 04	1,772 04
Portage du Fort, bridge		3,320 59		3,320 59
River St. Louis, bridge abutments ..		190 00		190 00
York bridge (Grand River).....		1,042 38		1,042 38

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Continued*

Name of Work	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ROADS AND BRIDGES—<i>Con.</i>				
<i>Manitoba, Saskatchewan, Alberta and British Columbia—</i>				
Banff, bridge.....		1,689 91		1,689 91
" new bridge.....	93,709 66			93,709 66
Edmonton, bridge.....		106 13		106 13
Oyama canal bridge.....		352 23		352 23
Prince Rupert, quar. station, bridge.....		4,499 47		4,499 47
St. Andrews, Man., road.....	4,627 15			4,627 15
Totals, roads and bridges.....	170,838 77	17,419 75	7,950 61	196,209 13
TELEGRAPH AND TELEPHONE LINES				
Cape Ray—Newfoundland			250 00	250 00
<i>Maritime Provinces—</i>				
Bay of Fundy lines.....			5,950 63	5,950 63
Cape Breton lines.....	327 50	2,751 26	48,297 14	51,375 90
Chatham-Escumincac line.....			1,936 02	1,936 02
Prince Edward Island and mainland cable.....			7,186 66	7,186 66
Prince Edward Island, contribution of half cost of reconstruction of telegraph lines jointly owned by the Anglo-American Co. and the Dom. Government.....	4,745 63			4,745 63
<i>Quebec Mainland—</i>				
Dorchester County lines.....			9 37	9 37
North Shore, east of Bersimis.....			37,970 29	37,970 29
" west of Bersimis.....			21,815 58	21,815 58
Quebec County lines.....			5,613 55	5,613 55
Timiskaming lines.....			4,489 07	4,489 07
<i>Quebec Islands</i>				
Anticosti system.....			11,010 94	11,010 94
Cable ship <i>Tyrian</i>			106,843 84	106,843 84
Grosse Isle, Isle aux Coudres and Island of Orleans system.....			9,629 55	9,629 55
Magdalen Islands system.....			9,018 42	9,018 42
Maritime Provinces and Gulf generally.....			5,023 70	5,023 70
" " " Purchase of submarine cable to replenish stores.....	5,120 89			5,120 89
<i>Ontario—</i>				
Bath-Amherst Island system.....	637 00			637 00
Pelee Island system.....			4,771 10	4,771 10
<i>Saskatchewan and Alberta Lines—</i>				
Saskatchewan lines.....		6,548 60	72,629 03	79,177 63
Alberta lines.....		4,680 40	111,310 86	115,991 26
<i>British Columbia and Yukon—</i>				
Ashcroft-Dawson system.....		5,885 34	289,789 97	295,675 31
British Columbia Mainland system.....	5,787 50	21,693 55	98,156 75	125,637 80
British Columbia-Vancouver Island system.....		7,190 37	152,776 81	159,937 18
" " " Purchase of submarine cable to replenish stores.....	12,379 11			12,379 11
Telegraph service generally.....			1,015 62	1,015 62
Totals, Telegraph and Telephone Lines.....	28,997 63	48,749 52	1,005,494 90	1,083,242 05

12 GEORGE V, A. 1922

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1921.—*Concluded.*

Name of Work	Construc- tion and Improve- ments	Repairs	Staff and Main- tenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
MISCELLANEOUS				
<i>Surveys—</i>				
Maritime Provinces.....			25,001 20	
Quebec.....			28,913 83	
Ontario.....			27,753 64	
Manitoba.....			4,261 94	
Saskatchewan and Alberta.....			1,776 47	
British Columbia.....			15,994 95	
Generally.....			236 30	103,938 33
<i>Upper Ottawa Storage dams—</i>				
I and damages.....	6,715 24			
Quinze dam.....	19,183 17			
Timiskaming dam.....	14,389 78			
Generally.....	84,175 59			124,463 78
<i>Accounts Branch—</i>				
Salaries and travelling expenses of agents, clerks, etc., of outside service.....			20,845 23	20,845 23
Compassionate allowance to the mother of the late E. P. Gingras who was drowned at Alice Arm, B.C., on 13th April, 1920, while on duty.....			2,000 00	2,000 00
Legal Services re cases before International Joint Commission.....			10 00	10 00
Gratuities to widows or other representatives of 53 deceased employees under Civil Service Amend- ment Act (Sec. 30).....			10,360 14	10,360 14
Inspection Boats, new motors for Inspection boat in Prince Edward Island.....	2,100 00			2,100 00
Monument to the memory of the late Thos D'Arcy McGee.....	3,600 00			3,600 00
Memorial to the late Lt.-Col. H. Baker, M.P.....	500 00			500 00
Operation and maintenance of inspection boats.....			21,108 29	21,108 29
River gaugings and metering.....			23,994 17	23,994 17
Collection of Public Works Revenues.....			3,487 91	3,487 91
Cost of living bonus (Vote No. 363).....			571,444 77	571 444 77
Increase in Salaries due to the application of the re- classification of the Civil Service (Vote No. 558).....			143,675 84	143,675 84
Totals, Miscellaneous.....	130,663 78		900,864 68	1,031,528 46

PART II
EXPENDITURES by the Department of Public Works of Canada from Demobilization

Name of Building	Construc- tion and Improve- ments	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Mainten- ance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>New Scotia</i>									
Dartmouth naval station, aviation	23 554 68								23,554 68
Glace Bay, M. and D., dental clinic			6 67						6 67
" S.C.R., C.M.B.A. Bldg			280 00						280 00
Halifax, Bellevue, military hospital	15,100 29								15,100 29
" S.C.R., Supt's residence		3,803 85		661 65					4,465 50
" Camp Hill military hospital	3,798 50								3,798 50
" discharge depot, pier No. 2	35,686 33								35,686 33
" military garage	769 07								769 07
" M.S.A. Registrar			90 00						90 00
" Rockhead, military hospital									135 00
" Roy Bldg., Soldiers' Settlement Board	135 00								
" Soldiers' Settlement Board, Barring- ton st.		45 25	2,039 83						2,085 08
" S.C.R., Halifax Relief Com. Bldg., vocation branch		72 00							72 00
New Glasgow, M. and D., dental surgery		269 53	1,400 00						1,669 53
Stellarton, M. and D., 86th Field Battery		480 00	35 00						515 00
Sydney, S.C.R. McLeod Block, medical branch									600 00
" D.			600 00						
" Ross Block			180 00						180 00
<i>Prince Edward Island</i>									
Charlottetown, Riley bldg., Soldiers' Settle- ment Board		245 59	900 00						1,145 59
" S.C.R., vocation branch, etc., Grafton st.			779 00						779 00
North Wiltshire, Dalton sanatorium	9,815 22								9,815 22
Summerside, S.C.R., vocation branch			165 00						165 00
Prince Edward Island, generally		246 59							246 59
<i>New Brunswick</i>									
Edmundston, M. and D., Militia Units		119 46							119 46
Fredericton M. & D., Dunbar House			700 00						700 00
" military hospital	3,408 26								3,408 26
Marysville, M. and D. Depot, Main street			20 00						20 00
Moncton, Armoury 74th Bn., etc.		675 00	960 00						1,635 00
Field Battery, C.F.A.		675 00	450 00						1,125 00

EXPENDITURES by the Department of Public Works of Canada from Demobilization—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
New Brunswick—Concluded									
Moncton, Higgins, B., M. and D., dental clinic			160 00						160 00
" S.C.R., vocational and medical offices			216 60						216 60
Riverglade sanatorium	4,256 68								4,256 68
St. John County hospital-military hospital	8,697 28								8,697 28
" detention building and immigration shed	2,530 25								2,530 25
" drill hall	855 21								855 21
" M. and D., Headquarters No. 7			750 00						750 00
" M. and D., McAvity Bldg. storage			35 00						35 00
" Partridge Island, stores, small arms, ammunition, etc.			87 50						87 50
" S.C.R. Bank of Montreal, dental clinic			1,058 33						1,058 33
" " 160 Prince William street			145 80						145 80
" " 76 Prince William street			825 00						825 00
" " garage 66 Charlotte street			385 00						385 00
" " Stockton bldg.			174 97						174 97
" " sundry offices		248 11							248 11
St. John West immigration building		566 05							566 05
St. Stephen M. and D., Windsor Hotel, dental clinic			50 00						50 00
New Brunswick, sundry buildings		74 55							74 55
Quebec									
Fraserville (Riv. du Loup armoury No. 2			1,080 00						1,080 00
" S.C.R., Clinor. Block			42 00						42 00
Hull, 70th Regiment, 127 9 Main street			112 50						112 50
Lachine, S.C.R. 180 Notre Dame street			245 00						245 00
Lachine, 11th Regiment Argenteuil Barracks, Main street		35 00	120 00						155 00
Montreal, barracks, old High School, Cor. Peel and Metcalfe		37,500 00	2,020 33						39,520 33
" M. and D., "Grey Head" hospital and garage		18 27	5,220 00						5,238 27
" " Mance street, 1st and 8th		56 50	2,233 34			16 18			2,306 02
" " machine gun brigade									
" " Read bldg., Ordnance and barracks stores		45 81	10,000 00						10,045 81
" " Westmount Rifles, 1215 Greene avenue			1,125 00						1,125 00

REPORT OF THE CHIEF ACCOUNTANT

SESSIONAL PAPER No. 19

Location	Area	Value	Assessment	Rate	Amount	Balance
" garage, 142-144 Bleury st.						2,750 00
S.C.R., Andrews House, Belmont Park						1,704 00
" Coronation building						1,068 67
" Drummond building						19,160 54
" garage, 631 race street						3,999 96
" Laman building store room						3,000 00
" Nurses' Home, 786 D'Arches						250 00
" " 451 Sher-						666 64
" Prince of Wales hospital, old						9,590 15
" Loyola College, 68 Drum-						1,688 44
" mond street						16,288 50
" Slaughtness building, voca-						1,250 00
" tion office, etc.						2,595 43
" training branch						69 95
" vocational school, 163 Ontario						982 00
" street						475 00
Quebec Cox's Field, barracks						2,435 74
" Lindsay building, Soldiers' Settlement						62 75
" Beard						1,219 03
" M. and D., Supt. Penit. Arenal						37 50
" S.C.R., Meyer building						1,310 00
" sundry buildings						
Ste. Anne de Bellevue military hospital						
Sherbrooke, M. and D., York apts., dental						
" clinic						
" Sun Life building, S.S.B.						
Ottawa Buildings						
Air Board, McDevon building, 529 Sussex street						
Board of Pension Comm., Federal building						
" 52-54 Rideau street						
" Transportation bldg						
Historic Record Comm., car, Sparks and Kent						
streets						
Income tax office						
La Banque Nationale building Internment branch						
M. and D. Aylmer Annex						
" Canadian building, S.A. and A. P.						
branch						
" Paly building, Records Office						
" Dental Corps, 107 Bank street						
" Echigo building, Contracts Branch						
" Elgin Cottages, 41 Albert street						
" Carriage, car Duke and Queen streets						
" Inspector of Artillery stores, 300-310						
Sparks street						

EXPENDITURES by the Department of Public Works of Canada from Demobilization—Continued

Name of Building	(Construc- tion and Improve- ments	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Mainten- ance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Ottawa—Concluded</i>									
M. and D.O.A.A.C. building, 5th P.L.D.G., and Artillery brigade			7,157 21			59 46			7,216 67
" Popham building, dental service, etc			3,485 43		65 06				3,550 49
" Woods building Central registry office		3,762 50							3,762 50
Military stores	118 29	95 00							243 29
S.C.R. Demobilization staff, 130-132 Queen st.		5 40	3,990 20		214 26	49 21	16 66		4,275 73
S.C.R. Fitting Depot, 121-123 Rideau street			2,866 66						2,866 66
" Garage, 352 Albert street			732 00						732 00
" Headquarters, 22 Victoria street...		4,319 63		20 73					4,340 36
" Plaza building, Repatriation Comr.			3,650 00						3,650 00
" vocation office, 191 Chapel street.		10 35							10 35
Soldiers' Settlement Board, generally		1,726 25							1,726 25
" Union Bank building		5,298 60							5,298 60
Sir Sanford Fleming Home....			4,186 08			54 65			4,240 73
War trophies, Exhibition building storage...	650 00								650 00
" building, Sussex street ..	18,138 59								18,138 59
Generally.....	65 00	762 83	12 05		32 97	1 54			874 39
<i>Ontario (excluding Ottawa)</i>									
Barrie, M. & D. dental clinic, 76 Dunlop street			40 00						40 00
Brantford, S.C.R., cor. King and Dalhousie Sts			1,181 40						1,181 40
" Schultz bldg., workshop....			851 78						851 78
Brighton Town Hall, "B" Co., Northumberland Regt.....			5 00						5 00
Burlington, Brant House, military hospital									276 92
Chatham, "E" Battery, 2nd Machine Gun B'de	276 92		240 00						240 00
Fort William, Soldiers Settlement Board		318 21	252 00						570 21
Freepoint (near Kitchener), sanatorium...	503 80								503 80
Goderich, Colborne Hotel, Hamilton st., M. & D.			90 00						90 00
Guelph, reformatory farm, ..			320 55						320 55
" " military hospital...		141 45							141 45
" S.C.R., Herald bldg.			1,000 00						1,000 00
Halleybury, S.C.R., Dist. vocation offices.....			288 00						288 00
Hamilton, M. & D., C.A.D.C., 127 King St. E.		150 00	300 00						450 00
" Royal Market bldg., Board of Pen- sion Commissioners			250 00						250 00
" S.C.R. Garage, 135 King St. W.....			800 00						800 00
" " 92 McNab street..			500 00						500 00
" S.C.R. vocational branch, 25 Emer- ald street.....			900 00						900 00

DEPARTMENT OF PUBLIC WORKS

12 GEORGE V, A. 1922

EXPERIMENTS by the Department of Public Works of Canada from Demobilization—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Ontario, including Ottawa - C. N.</i>									
Casualty clearing station	218 48								218 48
Central military hospital - old Bishop Strachan school	3,671 10		4,561 70						8,232 80
Military Dist. No. 2, Headquarters, 149 College street		73 79	3,110 00						3,183 79
Military District No. 2 Headquarters, Cawthra House, 241 College street			2,000 00						2,000 00
M. and D., Demobilization office, 287 Queen street			1,835 00						1,835 00
" " Paymaster, Military Dist. No. 2, World Bldg., 40 Pichard street			2,833 35						2,833 35
" " Spadina military hospital, old Knox College			5,308 06						5,308 06
Nurses' residence, 699 Spadina Ave.			631 46						631 46
Orthopaedic hospital	4,275 75	133 88	515 00						4,820 75
R.C.M.P. quarters			24 00						24 00
Ross Farm, Moore Park	100 10								100 10
St. Andrews College and hospital									
S. C. R., Allen Mfg. Co. Bldg.			8,981 01						8,981 01
" dental clinic, Orthopaedic Pr., 184 Spadina Ave.			2,316 00						2,316 00
" Information and service Bt.			135 00						135 00
" mechanical transport, Depent street garage			5,400 00						5,400 00
" medical office, 69 71 Knight Ave.			3,000 00						3,000 00
" Nurses' Home, 141 Talbot St.			1,500 00						1,500 00
" Vocational Bt., 1 College St.			204 04						204 04
" " Broadway			850 00						850 00
" " 475 Spadina Ave.			350 00						350 00
" " 592 King St.			13,910 00						13,910 00
" " Royal Alcan-dra lot			72 00						72 00
Spadina military convalescent hospital	3,181 16								3,181 16
Soldiers' Settlement Board, 32 34 Adelaide street		862 71							862 71
North, orthopaedic hospital (Daviesville)			7,853 82						7,853 82

REPORT OF THE CHIEF ACCOUNTANT

SESSIONAL PAPER No. 19

Trenton, armoury, Hastings and Prince Edward Regiment.....	150 00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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EXPENDITURES by the Department of Public Works of Canada from Demobilization—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Saskatchewan—Concluded									
Regina, M. and D., barracks stores, M.D. No. 12			525 00						525 00
" " demobilization branch (Sherwood building)			9,679 00						9,679 00
" " dental office (A.D.C. (Kerr block)....			330 00						330 00
" " garage, 14th avenue			1,195 00						1,195 00
" " military district No. 12			4,200 00						4,200 00
" " " stables			150 00						150 00
" " Ordnance corps, ammunition hut			480 00						480 00
" " Ordnance corps, Exhibition buildings			142 85						142 85
" " Ordnance stores, 8th avenue			3,529 92						3,529 92
" " Ordnance stores....			3,271 00						3,271 00
" " Soldiers' Settlement Board (McCallum Hill block)			93 35						93 35
" " Soldiers' Settlement Board (Westman chambers)		1,331 25	7,165 00						8,496 25
" " stable for A.S.C., 1952 Hamilton street....			81 30						81 30
" " S.C.R., G.W.V.A. building		109 10	5,725 00		2 03				5,836 13
Saskatoon, M. and D., armoury (old Knox church)....			1,200 00						1,200 00
" " Headquarters 12th C.M. G. brigade....			1,050 00						1,050 00
" " No. 3 C.O., C.M.G. brigade....			1,050 00						1,050 00
" " Soldiers' Settlement Board (Canada Life building)....			856 00						856 00
" " Soldiers' Settlement Board (Connaught block)....		3,372 32	5,543 55						8,915 87
Swift Current, Burrow building, dental offices			100 00						100 00
" " M. and D. armoury....			180 00						180 00
Saskatchewan, sundry buildings generally....		202 50							202 50
Alberta									
Banff, M. and D., 4th Field Troop, C.F., 307 Banff avenue.....		75 00							75 00

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Calgary, immigration agent accommodation.....	280 00				280 00
" M. and D., garage, 330 5th ave. W.....	1,800 00				1,800 00
" " ordnance depot.....	400 00				400 00
" North West Commercial Travellers Association.....	250 00				250 00
" S.C.R. and Pension Board (Herald building).....	262 50				262 50
" " and S.S. Board (Lancaster building).....	11,724 95				11,724 95
" Beveridge building.....	30 00			1 80	31 80
" Canadian Fairbanks building, military hospital.....	10,800 00				10,800 00
" garage, 230-232 6th ave. west.	462 50				462 50
" Nurses' Home, 1417 7th avenue N.W.....	480 00				480 00
" Nursing Sisters' Home, 712 12th avenue.....	270 00				270 00
" Southam chambers, S.S. Board etc.....	7,200 00	28 67		507 85	13,211 14
" store room, 516 6th avenue W.....	600 00				600 00
" Sunnyside hospital.....	3,000 00				3,000 00
" workshops, etc., 606 608 2nd street E.....	1,660 56				1,660 56
Edmonton, M. and D., Tegner building, dental clinic.....	93 35				93 35
" S.C.R., Alberta College, military hospital.....	1,583 30				4,583 30
" " St. Regis building, orthopaedic shop.....	475 00		21 00		499 00
" " White block, Vocation Branch.....	915 00				915 00
" " 10858 Whyte ave., Vocation Branch.....	257 50				261 15
" " and S.S.B., (McLeod Building).....	3,160 00				3,160 00
" Soldiers' Settlement Board (Williamson block), Jasper ave.....	16,020 00				16,250 99
" Soldiers' Settlement Board, generally.....	1,912 75				1,912 75
Edmonton South (Strathcona), military hospital	16,262 00				16,262 00
Frank, sanitorium.....	1,220 45				1,220 45
Lethbridge Headquarters, artillery and infantry units, 6th avenue and 6th street.....	1,200 00				1,200 00
Medicine Hat, M. and D., (Quebec Bank building) temporary quarters for Alberta Regiment.....	300 00				300 00
Wetaskiwin, S.C.R., Nurses' Home.....	400 00				400 00
Alberta, sundry buildings generally.....	59 85				59 85

EXPENDITURES by the Department of Public Works of Canada from Demobilization—Continued

Name of Building	Construction and Improvements	Repairs and Furniture	Rents	Heating	Lighting	Water	Power	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Bath Columbia									
Kalfour, S.C.R., Kalfour ranch			280 00						280 00
" " Kootenay Lake hotel			1,800 00						1,800 00
Courtenay, Townsite Co., Battery 11th, M. G. brigade			225 00						225 00
Duncan agricultural hall, Battery 11th, M. G. brigade			37 50						37 50
Esquimalt, married members P.P.C.L.L., 484 Gore street			70 55						70 55
" married members P.P.C.L.L., 509 Gore street			66 30						66 30
" married members P.P.C.L.L., 515 Gore street			74 00						74 00
" military hospital	10 80								10 80
" temporary barracks	27 00								27 00
Fernie, S.C.R., Napane building			20 67						20 67
Kamloops, S.C.R., Stevens & Allan block			60 00						60 00
Nanaimo, Agricultural Society building, "H" battery, 11th machine gun brigade			93 57						93 57
" Roller rink, "H" battery, 11th machine gun brigade			100 00						100 00
Neelson Soldiers' Settlement Board			114 00						114 00
New Westminster, S.C.R. Nurses' Home			480 00						480 00
Penticton, S.C.R., Stratford block			25 00						25 00
Revelstoke, S.C.R., McRae block			55 50						55 50
Vancouver, Fairmont military hospital		290 00							290 00
" Headquarters armory, 72nd Regt.			1,375 00						1,375 00
" M. and D., C.A.S.C., 1117 Simonson street			250 00						250 00
" " " stables			2,500 00						2,500 00
" " storage, rear of ordnance stores									
" S.C.R., Board of Trade building			220 00						220 00
" " class room and Vocational Branch, 1155 Pender street			10,870 00						10,870 00
" " Farmer building			4,500 00						4,500 00
" " Functional training, 155 Cordova street W.			1,545 84						1,545 84
			404 00						404 00

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"	Functional training, Arlington building, 316 Cordova street W.	283 34	283 34
"	information service	.....	3,600 00	.....	.....	3,600 00
"	rear of 1155 Pender street	.....	300 00	.....	.....	300 00
"	Rice & Schman building, 317 321 Pender street, 1155 Pender street	.....	750 00	.....	213 36	750 00
"	Rogers building, S.S. Board	1,391 33	8,176 65	.....	.....	9,781 34
"	Thomas block, Vocational Branch	.....	1,900 00	.....	.....	1,900 00
Vernon, S.C.R., McGraw building, Victoria, M. and D., married members P.P.C. I.L.	.....	1,093 71	1,200 00	874 00	.....	3,167 71
"	" "Resthaven" military hospital	.....	90 00	.....	.....	90 00
"	S.C.R., and S.S.B., Central building	.....	750 00	.....	.....	750 00
"	" "Cragcharrock" hospital	143 50	4,132 00	.....	.....	4,275 50
"	" "Cragcharrock" hospital, store room	.....	1,765 31	.....	.....	1,765 31
"	" garage, 1111 Mear street	.....	180 00	.....	.....	180 00
"	" information service, 531 Bas- tion street	.....	35 00	.....	.....	35 00
"	" mechanical clinic, 1406 Doughty street	.....	110 00	.....	.....	110 00
"	" mechanical transport, corner Cornwall street	.....	616 13	.....	.....	616 13
"	" school for motor mechanics garage, 1017 Rockland ave.	.....	220 00	.....	.....	220 00
"	" 913 Douglas street	.....	2,400 00	.....	.....	2,400 00
"	" 851 853 Piquard street	.....	900 00	.....	.....	900 00
"	" 616 Trounce street	.....	800 00	.....	.....	800 00
"	Soldiers' Settlement Pond (Pemberton block) ... ..	.....	140 00	.....	.....	140 00
British Columbia, laundry buildings, generally	.....	585 84	600 00	167 36	.....	1,353 20
	.....	21 90	50 50	.....	.....	75 40
Soldiers Graves in France	.....	.....	.....	.....	.....	22 00
Sundry military buildings, generally	.....	.....	.....	.....	.....	41,547 01
Union officers, generally	.....	28,383 11	.....	.....	.....	28,383 11
War Bonus	.....	.....	.....	.....	.....	36 92
Sub-Total,	511,345 28	150,939 26	520,403 57	1,846 87	411 66	1,230,482 02
Loss North Sydney, Naval Air Station, " Ottawa rents	6,937 15	.....	1,652 80	.....	.....	8,580 95
Grand Total	511,408 13	150,939 26	518,750 77	1,846 87	411 66	1,217,892 07

EXPENDITURES by the Department of Public Works of Canada from all Appropriations

Recapitulation	Dredging	Construction and Improvements	Repairs	Staff and Maintenance	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Totals Public Buildings—</i>					
Nova Scotia.....		69,060 54	25,068 34	96,138 08	190,266 96
Prince Edward Island.....		7,547 18	3,723 94	18,615 72	29,886 84
New Brunswick.....		44,035 56	20,694 65	93,995 32	158,725 53
Quebec.....		117,256 67	61,653 76	524,198 95	703,109 38
Ottawa.....		2,397,161 12	209,540 97	2,510,098 65	5,117,100 74
Ontario (excluding Ottawa).....		661,579 83	17,893 22	458,089 15	1,167,562 20
Manitoba.....		91,457 84	26,616 73	151,611 77	269,686 34
Saskatchewan.....		33,581 68	16,741 89	94,936 50	145,260 07
Alberta.....		31,227 41	23,301 67	130,432 33	184,961 41
British Columbia.....		109,601 22	26,916 17	190,407 69	326,927 48
Yukon.....				39,432 35	39,432 35
Public Buildings, Generally.....		11,967 90		99,002 30	110,970 20
<i>Totals, Harbours and Rivers—</i>					
Nova Scotia.....	246,198 66	1,671,186 08	137,613 41	4,492 70	2,059,790 88
Prince Edward Island.....	65,312 45	56,066 65	16,122 18	2,158 78	139,660 06
New Brunswick.....	129,566 63	1,236,754 23	87,423 43	60,511 61	1,514,285 93
Quebec.....	189,486 31	256,498 23	258,311 72	192,619 00	896,915 26
Ontario.....	242,909 17	2,219,246 49	194,561 08	99,359 12	2,756,078 86
Manitoba.....	72,707 16	24,116 53	15,092 06	34,073 46	145,989 21
Saskatchewan and Alberta.....		978 47		142 73	1,421 20
British Columbia.....	361,582 07	187,749 10	128,186 06	138,266 02	815,783 25
Harbours and Rivers, Generally.....		15,008 17		504,197 13	519,505 30
<i>Totals—</i>					
Dredging plant.....		6,502 65	141,977 80		148,480 45
Roads and bridges.....		170,838 77	17,419 75	7,950 61	196,209 13
Telegraph and telephone lines.....		28,997 63	48,749 52	1,005,191 90	1,083,242 05
Miscellaneous.....		130,663 78		960,864 68	1,031,528 46
Demobilization.....		564,468 13	150,939 26	542,544 68	1,217,892 07
Grand totals of expenditures.....	1,307,762 45	10,081,094 56	1,658,553 64	7,926,263 66	20,970,674 31

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CONTRACTS, DEEDS AND LEASES

Law Branch, P.W.D.

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—(continued)			
Nova Scotia.			
Annapolis..... Public building.....	Denton & Condon.....	Sept. 16, 1920	\$26,300 00
Annapolis Royal Post office.....	The J. T. Schell Company.....	Feb. 8, 1921	2,635 00
Yarmouth..... Public building.....	H. A. Russell & D. K. McAuley.....	Sept. 30, 1920	23,947 00
“..... Post office.....	Art Furniture Co., Ltd.....	Jan. 7, 1921	(25,947 00)
“.....	“.....	“.....	4,387 00
New Brunswick.			
Partridge Island Quarantine Station.....	James E. Kane.....	Jan. 28, 1921	20,388 35
(St. John). New steam boiler in, installation of.....	James H. McPartland.....	Sept. 17, 1920	2,980 00
St. John.....	R. E. Fitzgerald.....	Oct. 15, 1920	8,500 00
“..... Immigration building.....	“.....	“.....	“.....
“ West.....	J. A. Grant & Co., Ltd.....	Dec. 8, 1920	2,100 00
“.....	Wm. J. Crawford & Co.....	Dec. 8, 1920	220 00
“..... County hospital.....	The Stephen Construction Co.....	Dec. 22, 1920	8,637 00
Quebec.			
Montreal..... Central post office.....	P. Lyall & Sons Cons. Co., Ltd.....	July 13, 1920	26,428 00
“..... Examining warehouse.....	T. Lessard & Sons Ltd.....	Oct. 12, 1920	965 00
Quebec..... Marine store building.....	L. H. Peters, Limited.....	April 21, 1920	8,205 00
“.....	“.....	“.....	“.....
Richmond..... Customs Postal Parcels Branch.....	Art Furniture Co., Ltd.....	Nov. 16, 1920	2,525 00
“..... Public building.....	Wiggett Electric Co., Ltd.....	Aug. 14, 1920	575 00

DEPARTMENT OF PUBLIC WORKS

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Works		Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—(Continued				
Ottawa.				
Port William	City Hall	J. Hosegood	July 9, 1920	718 00
Hamilton	Postal Station "B"	Burton & Baldwin M'fg Co., Ltd.	July 13, 1920	3,970 00
Kingston	Mowat Sanatorium	Otis Fensom Elevator Co., Ltd.	April 19, 1920	3,810 00
"	R.M.C. (Educational Block)	Pigott Healy Cons. Co.	May 20, 1920	5,234 00
London	Psychopathic hospital	W. H. Harvey	April 17, 1920	11,010 00
"	Westminster	Canadian Des Moines Steel Co., Ltd.	Aug. 16, 1920	13,280 00
"	"	W. H. Harvey	Oct. 11, 1920	158,780 00
"	"	Wright-Teale Co.	Oct. 29, 1920	1,275 00
"	"	F. R. Dark	Feb. 9, 1921	3,676 00
Oshawa	Public building	John Carroll	June 16, 1920	1,850 00
Ottawa	Government Printing Bureau	Otis Fensom Elevator Co., Ltd.	May 7, 1920	6,571 00
"	Printing Bureau	Bate, McMahon & Company	June 7, 1920	20,263 00
"	War Trophies building	Doran & Devlin	June 18, 1920	17,789 00
"	Printing Bureau	Union Architectural Iron Works	July 13, 1920	5,450 00
"	Experimental Farm	Chas. Holbrook & Sons	Aug. 9, 1920	27,741 00 and for excavation p. cu. yd. earth \$2.00, and for excavation p. cu. yd. rock, \$5.00; and addition in cost if ash is used in place of pine \$590.00; and addition in cost if birch is used in place of pine \$675.00.

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—Continued

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—Continued.			
Ontario—Con.			
Welland..... Post office..... Alterations, etc., to fittings..... Woodstock..... Supply and installation of fittings.....	W. J. Hickey. Arthur Bourque	Nov. 12, 1920 April 20, 1920	1,267 00 3,950 00
Manitoba.			
Brandon..... Public building..... Electric wiring..... Dauphin..... Alterations to heating plant..... Portage la Prairie. Post office..... Alterations, etc., to heating system.	Boyd Electric Co., Ltd. W. H. Moore..... Burns Bros.....	July .. 1920 Oct. 6, 1920 June 17, 1920	1,186 65 3,478 00 3,850 00
Winnipeg..... Supply and installation of fittings. Winnipeg..... Extension of mezzanine floor with counters and screens.	Snyder Bros.... R. N. Wyatt.....	Mar. 12, 1921 April 5, 1920	5,088 00 5,539 00
Winnipeg..... Tuxedo Military hospital..... Additional works in connection with contract re Ward buildings, foundation walls, etc.	Carter-Halls-Aldinger Co., Ltd.....	April 26, 1920	3,574 00
Winnipeg..... Additional works in connection with contract re Medical Officers, Nurses and Orderlies quarters.	Carter-Halls-Aldinger Co., Ltd.....	April 26, 1920	1,453 41
Winnipeg..... Postal Station "A" immigration hall.	Winnipeg Electric Ry. Co.....	April 27, 1920 (For 5 years).	10 00 (Minimum monthly charge)
Winnipeg..... Tuxedo military hospital	R. N. Wyatt	July 14, 1920	6,014 00
Winnipeg..... Customs building..... Alterations, etc., to heating system.	Green & Litster, Ltd.....	Sept. 25, 1920	5,289 00
Winnipeg..... Immigration hall (east end)..... Erection of marquees.....	The Vulcan Iron Works, Ltd.....	Nov. 10, 1920	1,665 00
Alberta.			
Edmonton..... Public building and Mortlake block. Edmonton..... Main immigration building..... Clearing, painting, renewal of floors and general repairs to.	Frost & Ingram..... R. H. Trough Co., Ltd.....	Dec. 16, 1920 Jan. 12, 1921	2,590 00 1,790 00
Red Deer..... Custom House..... Alterations to for conversion of same into post office.....	W. H. Cawston.....	Sept. 20, 1920	11,750 00

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Saskatchewan.						
Moose Jaw.....	Ross Park School.....	Restoration of same.....	H. E. Forbes.....	Aug. 20, 1920	11,297 50	
Regina.....	Assistant Receiver General's Office.....	Installation of steel beams.....	Poole Construction Co., Ltd.....	Nov. 16, 1920	1,175 00	
British Columbia.						
Comox.....	Public building.....	Electric wiring.....	W. H. Fraser Company.....	Aug. 6, 1920	500 00	
Jericho Beach (Vancouver)	Air Board of Canada.....	Concrete platform for.....	Ambrose & Aitken.....	June 30, 1920	4,950 00	
"	"	Wooden slipway for.....	Wm. Greenlees.....	July 8, 1920	5,878 58	
"	"	Plank roadway from Imperial st. alongside Beach to Air Station platform.	Wm. Greenlees.....	July 10, 1920	4,285 00	
"	Air Board of Canada.....	Office and garage building for...	W. J. Sloane & H. W. Harrison	Aug. 23, 1920	5,000 00	
"	Air Station.....	Water system for.....	Weeks & Company.....	Sept. 7, 1920	2,669 52	
Vancouver (Fairmont).	R.C.M.P. Barracks.....	Alterations, etc., to main building.	Jos. Wm. Bye.....	Aug. 17, 1920	4,917 50	
"	"	(Conversion of existing building into garage—wiring conduit.	E. Chrystal & Co., Ltd.....	Aug. 17, 1920	3,083 00	
"	"	Restoration of a portion of.....	Jos. Wm. Bye.....	Oct. 27, 1920	18,000 00	
"	"	Horse stables at, construction of.	Robt. Moncrieff.....	Nov. 30, 1920	44,932 00	
HARBOURS AND RIVERS.						
Nova Scotia.						
Bass River.....	Wharf.....	Construction of.....	Naugle & Hiltz.....	Oct. 26, 1920	Sched. of prices.	
Owl's Head.....	Public wharf.....	Repairs to.....	Naugle & Hiltz.....	Sept. 14, 1920	"	
Port Lorne.....	Breakwater.....	Construction of.....	Denton & Condon.....	Nov. 10, 1920	"	
Port Maitland.....	East breakwater.....	Construction and addition to.....	Denton and Condon.....	Nov. 10, 1920	"	
Seaforth.....	Breakwater.....	Repairs to.....	A. W. Girroir & W. F. Mackinnon..	Oct. 26, 1920	"	
Shenacadie.....	Wharf.....	Construction of.....	E. M. Dickson.....	April 1, 1920	"	
Sober Island.....	Wharf.....	Cribwork extension to.....	Melvin Naugle.....	April 22, 1920	"	
Summersville.....	Wharf.....	Repairs to.....	Naugle & Hiltz.....	Feb. 22, 1921	"	
Three Fathom Harbour.	Shore protection.....	Reconstruction and repairing of por- tion of.	Naugle & Hiltz.....	Oct. 26, 1920	6,079 20	
West Chezzet- cook.	Breakwater.....	Repairs to.....	A. W. Girroir & W. F. MacKinnon	Oct. 26, 1920	Sched. of prices.	
New Brunswick.						
Grande Anse.....	Dredging.....	Class "B" per cu. yd.....	Miramichi Dredging Co., Ltd.....	Aug. 28, 1920	\$0 63½ (on barge)	
Lord's Cove (Deer Island).	Wharf.....	Construction of.....	F. L. Boone & G. S. Macdonald.....	Oct. 20, 1920	Sched. of prices.	
Miramichi River (Northwest).	Dredging.....	(Three shoals, Goodfellow bar., Cassilis-Lawlor's shore), Class "B" per cu. yd.	Miramichi Dredging Co., Ltd.....	June 2, 1920	\$0.54½ (scow).	

Pelée Island.....	West pier.	Reconstruction of superstructure.	Border Cities Construction Co., Ltd.	Sept. 22, 1920	Sched. of prices.
Port Arthur.....	Dredging	Class "B" per cu. yd.	Canadian Dredging Co., Ltd.	July 2, 1920	\$0 28 (scow).
Port Hope.....	Dredging	Class "B" per cu. yd.	The Frontenac Dredging Co., Ltd.	Aug. 9, 1920	\$1 70 (situ).
Rondeau.....	Sheet pile wharf	Construction of.....	Wm. Bermingham.	Nov. 1, 1920	Sched. of prices.
"	Western pier.	Reconstruction of portion of super-structure of.	Border Cities Construction Co.....	Nov. 22, 1920	"
Thessalon .. .	Wharf	Reconstruction of part of super-structure of.	Geo. P. Sandie.....	Oct. 6, 1920	"
Toronto.....	Harbour works	Turning basin, ventilation channel, breakwater	Roger Miller & Sons, Ltd	Aug. 12, 1920	On basis of cost plus 7½ p.c.
"	Island..	Rubble mound stone breakwater off southern shore of.	The Randolph Macdonald Co., Ltd	May 26, 1920	Sched. of prices.
"	Eastern channel to Toronto Har- bour.	Reconstruction of 166 feet of super-structure of east pier.	The C. S. Boone Dredging and Construc- tion Co., Ltd.	Oct. 12, 1920	"
"	Harbour	Construction of additional sections of cribwork and building sections "B" and "J".	Roger Miller & Sons, Ltd	Dec. 30, 1920	45,475 00
Whitby	Dredging	Class "B" per cu. yd.	The C. S. Boone Dredging & Construction Co., Ltd.	Aug. 21, 1920	\$0 61½ c. (situ).
Selkirk .. .	Supply of electric energy to operate ship located at.		Town of Selkirk .. .		From April 1, 1920 to date of expiry of con- tract between Town of Sel- kirk and The Winnipeg, Sel- kirk and Lake Winnipeg Ry. —from Mar. 15 to Nov. 15 in each calen- dar year mini- mum rate of \$60.00 per month for en- tire term of Agreement.
Banti	Substructure, approach spurs, etc., etc., of bridge over the Bow river..		Fegles Construction Co., Ltd	Sept. 23, 1920	\$169,900 00 and \$1.25 for piles longer than 18 ft.
"	Structural steel of the new bridge across the Bow river.....		Dominion Bridge Co., Ltd	Sept. 23, 1920	73,886 00

Mandala.

Alberta.

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—*Concluded.*

Works.	Names of Contractors.	Date of Contract.	Amount.
HARBOURS AND RIVERS— <i>Continued.</i>			
<i>British Columbia.</i>			
Campbell River, Wharf.....	Wm. Greenlees.....	Sept. 23, 1920	Sched. of prices.
Isquimalt... Dry dock.....	P. Lyall & Sons Construction Co., Ltd.....	Feb. 17, 1921	"
Graham Landing Public floating wharf.....	L. H. Rawling.....	Dec. 15, 1920	13,832 00
Hollyburn... Wharf.....	Wm. Greenlees.....	Nov. 2, 1920	Sched. of prices.
Kuskanook... Floating wharf.....	F. Cogle & H. Perryleake.....	Aug. 16, 1920	7,950 00
Lyall Harbour... Wharf.....	Vancouver Pile Driving & Contracting Company.....	Sept. 23, 1920	Sched. of prices.
Moresby Island... Wharf.....	Vancouver Pile Driving & Contracting Company.....	Sept. 23, 1920	"
Princess Creek... Public floating wharf.....	F. Cogle & H. Perryleake.....	Sept. 27, 1920	7,980 00
Procter... Floating wharf.....	F. Cogle & H. Perryleake.....	Oct. 22, 1920	7,940 00
Royston... Wharf.....	Wm. Greenlees.....	Nov. 26, 1920	Sched. of prices.
South Gabriola Wharf.....	Daniel Owen Shook.....	Mar. 11, 1921	"
Stewart... Wharf.....	Wm. Thos. Muse.....	April 22, 1920	"
Thetis Island... Wharf.....	Vancouver Pile Driving & Contracting Co.....	Sept. 15, 1920	"
William Head... Dredging... Quarantine Stn (Maincoalwharf)	The Pacific Construction Co., Ltd.....	July 5, 1920	\$0.48 (situ).
VESSELS, DREDGES AND PIANT.			
Execution of repairs to "Dredge No. 1" (Quinlan & Robertson).....	Montreal Dry Dock & Ship Repairing Co., Ltd.	May 11, 1920	\$13,625 00
GOVERNMENT TELEGRAPH SERVICE.			
Freighting of supplies for Yukon telegraph line from Hazelton, B.C., to Northwards 2nd, 3rd, 4th, 5th, 6th, 7th, 8th and 9th cabin.	G. M. Beirnes.....	Jan. 17, 1921	5,280 00 (ap- proximate quan- tity 24,000 lbs. at \$0.22 per lb.)
Freighting of supplies for Yukon telegraph line from Telegraph Creek to Northwards Shesley, Nahlin, Nakina, Southwards, Iskoot, Echo Lake.	Frank Callbreath.....	Feb. 1, 1921	2,100 00 (ap- proximate quan- 15,000 lbs. at \$0.14 per lb.)

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STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what Purpose.	Area.	Price.
1920.						\$ cts.
April 6.....	Wm. D. Walker.....	His Majesty...	Sale of land composed of lot 24, in 1st Con., Township of Westminster, Ont.	Psychopathic Hospital.	5 acres.....	5,250 00
" 15.....	Provincial Government of Quebec.	Federal Government.	Sale of land composed of lot "C", of south part of lot 31, R 8 and of land composed of sections of bed of Lake Kipawa and of bed of River Kipawa, Township of Mazenod, Co. of Timiskaming, Que.	.....	1st lot 3 acres... 2nd lot 2 acres... 3rd lot 3 acres...	1 00
" 20.....	Provincial Government of British Columbia.	Dominion Government.	Transfer of wharf, the site thereof and approach thereto—Hopkins Landing, Howe Sound, B.C.	.....	.....	Free transfer.
May 5.....	Margaret Rose Watt.....	His Majesty...	Grant and release of certain parcel of land composed of portion of Sec. 56, Parry Bay, Dist. of Metchosin, B.C., And Certificate of Title re land being portion of Sec. 56, Parry Bay, Dist. of Metchosin, B.C.	William Head Quarantine Station. " "	18.25 acres..... 18.25 acres.....	9,041 67
" 18.....	Marie L. Clute and Elizabeth F. F. Fell. His Majesty.....	His Majesty... City of Lethbridge.	Release of claims re parcel of land in Sec. 81, Dist. of Metchosin, B.C. Sale of parcel of land most southerly 60 ft. throughout of lots Nos. 19 to 22 inclusive—Block II, with buildings, Lethbridge, Alta.	" Private enterprise.....	.....	100 00 4,000 00
" 20.....	The Cochrane Hardware Limited.	His Majesty...	Sale of town plot of Shaftesbury being that part of lot "B" water frontage opposite lot No. 26, Little Current, Ont.	Site for wharf.....	.....	900 00
" 20.....	Edward Mackie <i>et al.</i>	"	Sale of land being in front of town lot 26, Little Current, Ont.	"	.....	1,300 00
" 20.....	Is. A. Barrett <i>et al.</i>	"	Release in connection with land composed of westerly part of city lot 11, north side of Albert street, Ottawa, Ont.	Hunter building.....	.....	9,309 79
" 20.....	His Majesty.....	Corporation of city of Brantford.	Grant of certain premises composed of lot No. 20 on north side of Dalhousie street, Brantford, Ont.	.....	1 acre.....	25,100 00
" 26.....	City of Toronto.....	His Majesty...	Release of all claims, etc., re expropriation of land (formerly Melita street) Toronto, Ont.	Toronto Ortho. hospital	.....	No money consideration.
" 27.....	Eliz. Pierce.....	To city of Ottawa and His Majesty.	Release of all claims re injuries caused by fall on defective sidewalk on Lyon street, Ottawa, Ont.	.....	.....	47 75
" 27.....	The Canadian Pacific Railway Co.	His Majesty...	Easement re right of way and access to Immigration building, parish of St. John, Winnipeg, Man.	.....	.....	1 00
" 28.....	Roland F. Taylor.....	"	Surrender of lease re property known as "Resthaven," Saanich Peninsula, Vancouver Island, B.C.	.....	.....	(Representing 5 months' rent) 1,250 00

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—Continued

Date of purchase or sale.	Vendors.	Purchasers.	Description of Property.	For what Purpose.	Area.	Price.
						\$ cts
June 10, 1920.	Frank Barcus Wallace.....	His Majesty	Grant of land and land covered by water, Turkey Island, Essex Co., Ont.	Fighting Channel.	23.35 acres	1 00
" 11	Certificate of Title.....	"	Certificate of Title re portions of lots 61, 87 and lots 96 and 116, parish of St. John, Winnipeg, Man.	Site for wharf		
" 11	"	"	Certificate of Title re portions of lots 95 and 117 and portion of lot 88, parish of St. John, Winnipeg, Man.	"		
" 14	His Majesty.....	Corporation of Kingston, Ont.	Grant of grounds northeast corner of Government property at Kingston Dry Dock, Kingston, Ont.			4,500 00
" 18	Nelson Mitchell	His Majesty..	Agreement re right of way between property at rear of public building at lot No. 253, Granby, Que.	Government purposes		500 00
" 19	Robert Mines <i>et al.</i>	"	Sale of land, part of north half of lot 24 in 1st Con., tp. of Westminster, Ont.	Westminster Psychopathic hospital.		11,000 00
" 23	Certificate of Title.....		Certificate of Title re portion of lot 60, parish of St. John, Winnipeg, Man.	Site for wharf.....		
" 23	"		Certificate of Title re portion of lot 35, parish of St. John, Winnipeg, Man.	Site for wharf.....		
" 24	R. Annie, W. R. Dunbar and Christina M. Fraser <i>et al.</i>	His Majesty...	Release for all claims re Dunbar building on Colonial Inn, Fredericton, N.B.			Final rental of Colonial Inn 700 00
The following item received too late for June 15, 1917.	Provincial Government of New Brunswick.	insertion in last Federal Government.	Year's Annual Report (1919-1920). Transfer of wharf site, Lord's Cove, N.B.			Free transfer.
July 2	His Majesty.....	Janet Mary Chamberlain.	Sale of lots Nos. 9 and 10, block 23, Peterborough map 692, with buildings, at Wilbur, B.C.			400 00
" 15	Notice of expropriation		Expropriation of leasehold interest re ground floor and basement of 290 Danforth ave., Toronto, Ont.	Postal Station		
" 30	Heid and Archibald.	His Majesty..	Release and discharge for all claims, etc., in re contract for works in harbour of Inverness, N.S.			9,396 25
Items received too late for insertion in last year's Annual Report (1919-1920).						
July 10, 1906	Oliver Brown	His Majesty.	Sale of land and land covered by water, tp. of Dover, Ont.	For turning basin and approaches.	628 sq. yds.....	1 00
July 15, 1919.	Quinlan & Robertson.....	"	Bill of sale re vessel "George R"			1 00

SESSIONAL PAPER No. 19

1920.	Aug. 3.	City of St. John, N.B....	His Majesty	Release for damages which might be caused by dredging portion of harbour of St. John, N.B.		
"	3.	Thomas Julian,	"	Deed of easement <i>re</i> lots Nos. 34 and 35, tp. of Latulippe, Que.	Quinze Lake dam	145.80 acres
"	4.	Town of Kenora	"	Grant of land covered by water composed of water lot L.K. 231, Kenora Bay, Ont.	Government purposes	0.37 acre
"	12.	His Majesty. . . .	Wm. Henry McLean,	License to operate ferry between tp. of Onslow, Que., and tp. of Fitzroy, Ont.		During 5 years, \$5.00 per ann.
"	14	Wm. MacDonald	His Majesty..	Release of all claims for damages in <i>re</i> expropriation of land at Eastern Passage (Halifax, N.S.)	Airplane station	1,600 00
"	18	The Halifax Graving Dock Co., Ltd.	"	Deed and release of all claims <i>re</i> parcel of land and land covered by water, Richmond (Halifax, N.S.)	Halifax Graving Dock	7.5 acres
"	25	His Majesty. . . .	L. A. Roostein.	Bill of sale <i>re</i> vessel "P.W.D. No. 313" ..		
"	26	P. C. Sims and C. L. D. Sims <i>et alios</i> .	His Majesty	Sale of town plot of Shaftesbury being part of water frontage in front of lot No. 26, Little Current, Ont.	Site for wharf	10,250 00 3,225 00
"	27	los Hercule Daneman	"	Assignment and surrender of lease <i>re</i> Ile Charon (St. Maurice River), Que.		
"	27.	"	"	Assignment and surrender of lease <i>re</i> Ile St. Christophe (St. Maurice River), Que.		

Items received too late for insertion in last year's Annual Report (1919-1920).

Aug. 27, 1912	Notice of expropriation		Expropriation of land in parish of St. Martin (Vaughan's Creek), Quaco, N.B.	Site for wharf	14 acres
"	Certificate of title		Certificate of title <i>re</i> lot 7, block 61, Calgary, Alta.	Site for public building	
Sept. 6	Frank Charron	His Majesty	Release of all claims for past, present and future damages caused to lot 23, R 8, tp of Latulippe, Que.	Quinze Lake dam	11.30 acres
"	His Majesty	Regina Trading Co., Ltd.	Sale of lots 18, 19 and 20, block 326, Regina, Sask.	Private purposes	
"	Private Partners	His Majesty	Release of all claims in <i>re</i> piece of land, Napierville, Que.	Site for public building	427 00
"	L. B., Geo. B., and L. W. Block.	"	Release of all claims in <i>re</i> berth No. 5, R 1, block A, Quinze Lake, Que.	Quinze Lake dam	60,000 00
"	Certificate of ownership.	"	Certificate of ownership <i>re</i> s.e. part of water lot "A", Kenora Bay, Ont.	Subway wharf extension	400 00
Aug. 21	Certificate of title		Certificate of ownership <i>re</i> part of water lot "A" adjoining Keewatin road and Government water lot in town of Kenora, Ont.	Subway wharf extension	3,150 sq. ft
"	"		Grant of water lot L.K. 231, Kenora Bay, Ont.	"	17-100 acres.
"	"		Certificate of title <i>re</i> wharf adjoining roadway post, lot 1, block 57 A Map 519, Narana, B.C.		

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—Continued

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what Purpose.	Area.	Price. \$ cts.
Sept. 29 1920.	Certificate of title	His Majesty . . .	Wharf adjoining roadway between lots 6 and 7, Map 808, Whipple, B.C.	.....	..
" 29	"	"	Wharf adjoining the Okanagan Indian Reserve, Whiteman, B.C.	.....	..
" 29	"	"	Wharf adjoining Indian Reserve No. 10, Westside Ferry, B.C.	.....	..
" 29	"	"	Wharf adjoining s.w.¼ sec. 20, tp. 23, McKinley, B.C.	.....	..
" 29	"	"	Wharf adjoining Indian Reserve No. 9, West Bank, B.C.	.....	..
" 29	"	"	Wharf adjoining lot "O" block "E", Map 454, Okanagan Centre, B.C.	.....	..
" 29	"	"	Wharf adjoining n.w.¼ of sec. 8, tp. 14, Carrs Landing, B.C.	.....	..
" 29	"	"	Wharf adjoining district lot 3745, Wilson's Landing, B.C.	.....	..
" 29	"	"	Wharf adjoining end of Van Horne street, Map 479, Penticton, B.C.	.....	..
" 29	"	"	Wharf adjoining district lot 539, group 1, Bear Creek, B.C.	.....	..
" 29	"	"	Wharf adjoining end of roadway between lot 1, block 8 and lot 1, block 9, Map 125, Peachland, B.C.	.....	..
" 29	"	"	Wharf adjoining at end of roadway between lot 1, block A and lot I, block "B", Trepanier, B.C.	.....	..
" 29	"	"	Wharf adjoining district lot 3795 and 2197, Killiney, B.C.	.....	..
" 29	"	"	Wharf adjoining district lot 3329, Lwings Landing, B.C.	.....	..
" 29	"	"	Wharf adjoining district lot 3541, Nahun, B.C.	.....	..
" 29	"	"	Wharf adjoining n.w.¼ sec. 25, tp. 28, Okanagan Mission, B.C.	.....	..
Items received too late for insertion in last year's Annual Report (1919-1920).						
Sept. 12, 1905	A. G. Atkinson	His Majesty . . .	Sale of land and premises, tp. of Tilbury East, Ont.	Public wharf Jeannette's Creek.	0.574 acre.	10 00
" 12, 1905	The municipal corporation of tp. of Tilbury East.	"	Agreement to construct and maintain public highway between lots 10 and 11, tp. of Tilbury East, Ont.	In re public wharf.

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Oct. 6.....	His Majesty.....	Eastern Canada Stevedoring and General Contracting Co.	Bill of sale <i>re</i> sailing ship "Angus W. Robertson,"	1,000 00
" 6.....	"	Rev. R. Bazin, P.P.	Grant of certain parcel of land being part of lot 35, R 4, tp. of Loranger, Que.	Private purposes.....	.....	1,525 00
" 6.....	"	James Johnstone	Grant of two parcels of land comprising portion of sublot "C" of subdivision of lot 6983, group 1, district of W. Kootenay, B.C.	Exchange of other lands (in connection with wharf at Boswell).	{ 1st parcel 212.8 sq. ft. 2nd parcel 0.019 acre.	
" 7.....	Certificate of title.....	.....	Certificate of title <i>re</i> piece of land known as part of sublot No. 1 of lot 745-8, group 1, Map 999, district of W. Kootenay, B.C.	"	0.09 acre.....	.....
" 11.....	Edmond Champagne.....	His Majesty.....	Release of all claims for past, present and future damages caused to parcels of land forming part of lot 48-3, tp. of Latulippe, Que.	Quinze Lake dam.....	33.02 acres.....	1,005 00
" 20.....	His Majesty.....	St. John Dry Dock & Shipbuilding Company, Ltd.	Bill of sale <i>re</i> sailing ship "Katherine K".	.....	.....	5,000 00
" 22.....	Notice of expropriation.....	.....	Expropriation of land being part of water lot "G" in front of water lot "C" forming part of subdivision of water frontage opposite town lot 26, Little Current, Ont.	Site for wharf.....	.....	.....
" 25.....	David Robichaud.....	His Majesty.....	Deed of release and servitude <i>re</i> lot 38, R 4, tp. of Latulippe, Que.	Dam and sluiceways on Quinze Lake dam.	26.75 acres.....	260 50
" 26.....	Canadian Northern Realties, Ltd.	"	Transfer of land and premises being part of easterly part of lot "F", con. "D", Rideau Front, Ottawa, Ont.	R.C.M.P. Barracks...	26.30 acres.....	78,900 00
" 27.....	J. Coughlan & Sons, Ltd	"	Agreement <i>re</i> construction of Dry Dock and appurtenant works, Vancouver, B.C.	1 1/2 p.c. during 35 years	.....	.....

The following item was received too late for insertion in last year's Annual Report (1919-1920).

Oct. 29, 1918	Notice of expropriation...		Expropriation of land and property being on south side of Southeastern Passage, Halifax, N.S.	Wireless station...	3 acres.....	.....
Nov. 10...	The city of Montreal....	His Majesty	Permission and privilege granted <i>re</i> construction of additions to post office annex over Fortification Lane, Montreal, Que.	.....	.....	10,812 00
" 10	His Majesty.	The Canadian Northern Pac. Ry.	Permission to bring in material from outside False Creek and dump it on bottom of same and then redredge such material and discharge on lands at head of False Creek, B.C.	.....	.....	.....
" 12	Department of Naval Services.	Department of Public Works	Transfer of two small areas of land forming part of Naval hospital grounds, Skippers Cove, Esquimalt, B.C.	Dry Dock	0.76 acre.....	Free transfer.

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—*Continued*

Date of conveyance.	Vendors.	Purchasers.	Description of Property.	For what Purpose.	Area.	Price.
Nov 18, 1920.	His Majesty	J. P. Ranger	Sale of material used in construction of wharf and sheds at foot of Quinze street, North Timiskaming, tp. of Nedelac, Que.	Private enterprise...		\$ 200 00
" 20	Certificate of ownership.		Certificate of ownership of part of lot 11 in 6th con., tp. of Harris, Ont.	Timiskaming reservoir dam.	35 acres	
" 22	Alfred McEwan and wife.	His Majesty.	Sale of land partly covered by water, Merigonish, N.S.	French River wharf.	0.11 acres	100 00
" 23	Provincial Government of British Columbia.	Dominion Government.	Order in Council reserving lot No. 4198, Cassiar district, vicinity of Stewart, B.C.	Wharf site.	Free grant	
" 25	His Majesty	Town of Peace River.	Grant of parcel of land being part of lot No. 4, Peace River Landing Settlement, Alta.	Free grant		
The following items were received too late for insertion in last year's Annual Report (1919-1920).						
Nov 28, 1904	Thorvaldur Thorsvaldsson	His Majesty	Deed of land being portion of south $\frac{1}{2}$ of sec. 15, tp. 21, R 4, east of principal meridian, province of Manitoba.	Wharf site	1.841 acres	1 00
" 28, 1904	Sigmundur Sigurbergsson	"	Deed of land being portion of north $\frac{1}{2}$ of sec. 15, tp. 21, R 4, east of principal meridian, province of Manitoba.	"	2.63 acres	1 00
Dec. 6	Notice of abandonment		Abandonment of land in connection with property corner of Danforth Road and Ferrier Ave., Toronto, Ont.			
"	Certificate of title		Wharf adjoining northwesterly portion of sec. 68, s. division of Salt Spring Island, Cowichan district, Burgoyne Bay, B.C.			
"	"	"	Wharf adjoining s.w. $\frac{1}{4}$ of sec. 57, s. division of Salt Spring Island, Cowichan district, Beaver Pt., B.C.			
"	"	"	Wharf adjoining h.w. mark of sec. 12, R 1, north division of Salt Spring Island, Cowichan district, Fernwood, B.C.			
"	"	"	Wharf adjoining portion of sec. 14, R 1, south division of Salt Spring Island, Cowichan district, Fulford Harbour, B.C.			
"	"	"	Wharf adjoining h.w. mark of sec. 9, R 2 w. of sec. 10, R 3, north division of Salt Spring Island, Cowichan district, Vesuvius Bay, B.C.			
"	"	"	Wharf adjoining h.w. mark, s.w. $\frac{1}{4}$ of sec. 20, Nanaimo district, Gabriola Island, B.C.			

"	6	"	"	Wharf adjoining n.w. 1/4 of sec. 19, Cowichan district (Pender Island), Hope Bay, B.C.					
"	6	"	"	Wharf adjoining n.e. 1/4 of sec. 20, Cowichan district (Pender Island), Pender Island, B.C.					
"	7	"	"	Wharf adjoining s.w. 1/4 of sec. 12, Cowichan district, Mayne Island, B.C.					
"	7	"	"	Wharf adjoining s.w. 1/4 of sec. 18, Saturna Island, Cowichan district, Lyall Harbour, B.C.					
"	7	"	"	Wharf adjoining h.w. mark on n.w. 1/4 sec. 5, Giuliano Island, Cowichan district, Sturdies Bay, B.C.					
"	7	"	"	Wharf adjoining west half of n.w. 1/4 sec. 18, Lenman Island, Cowichan district, Penman Island, B.C.					
Dec	7		Certificate of title	Wharf adjoining h.w. mark s.w. 1/4 sec. 2, Hornby Island, Nanaimo district, Hornby Island.					
"	7	"	"	Wharf adjoining lot 64, Carter Island, Sayward district, Mansons Landing, B.C.					
"	7	"	"	Wharf adjoining lot 8, Quadra Island, Sayward district, Quatiaski Cove, B.C.					
"	7	"	"	Wharf adjoining h.w. mark on lot 304, Sayward district, Salmon River, B.C.					
"	7	"	"	Wharf adjoining sec. 3, Sooke district, Sooke Harbour, B.C.					
"	7	"	"	Wharf adjoining lot 1, Thetis Island, Cowichan district, Thetis Island, B.C.					
"	7	"	"	Wharf adjoining h.w. mark on west coast of Moresby Island, Cowichan district, Moresby Island, B.C.					
"	7	"	"	Wharf adjoining h.w. mark of Indian reserve, Cowichan district, Kuper Island, B.C.					
"	7	"	"	Wharf adjoining lot 648, R. I, Coast district, Minstrel Island, B.C.					
"	7	"	"	Wharf adjoining sec. 1, Quatsino, Rupert district, Coal Harbour, B.C.					
"	11	His Majesty,		Permission to lay and use at their own cost track over and across original breakwater, Bare Point (Port Arthur), Ont.					
"	15	"		Agreement re installation of new system of telephone for Government offices, Ottawa, Ont.	For 10 years				
"	16	"		Bill of sale re tug <i>Sir John</i>					1,000 00
"	16	"		Bill of sale re tug <i>Annette</i>					2,626 00
"	16	G. H. Hale		Sale of land being part of lot 7542, group I, Kootenay district, B.C.	Site for wharf	0.18 acre			1 00

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—Continued

Date of Conveyance	Vendors	Purchasers	Description of Property.	For what purpose.	Area	Price
The following items were received too late for insertion in last year's Annual Report (1919-1920).						
Dec. 4, 1918	The Equitable Investment Corporation, Limited.	His Majesty.	Sale of parcel of land on east side of South-east Passage, Halifax, N.S.	Air Station, Eastern Passage.	11.8 acres.....	4,991 00
" 10 " 1921.	Alexander Horne et ux.	"	Sale of parcel of land on east side of South-east Passage, Halifax harbour, N.S.	Air Station, Eastern Passage.	4.44 acres.....	11,228 00
Jan. 5	Certificate of title.....	"	Certificate of title <i>re</i> all that portion of s.w. 1/4 of sec. 27, tp. 20, R. 21, west of 2nd meridian, Regina, Sask.	(Caven dam.....	65.08 acres.....	.....
" 8	Certificate of ownership.	"	Certificate of ownership <i>re</i> parcel of land between May and Rebecca and Murray streets on Wahbe river, New Liskeard, Ont.	Timiskaming reservoir dam.	1/12 of acre.....	180 00
" 14	Certificate of title.....	"	Certificate of title <i>re</i> portion of bed of Howe sound lying in front of district lot 490, Map 490, Snug Cove, B.C.	.....	.....	.....
" 14	"	"	Certificate of title <i>re</i> portion of bed of Howe sound lying in front of district lot 911, Map 1620, Hopkins Landing, B.C.	.....	.....	.....
" 14	Marius Dufresne	His Majesty	Release of all claims under judgment in connection with post office, Maisonneuve, Que.	.....	.....	5,580 00
" 17	C. W. Sharpe & Co., Ltd.	"	Release of all claims in <i>re</i> plant formerly owned by Co., Toronto, Ont.	(Toronto harbour works)	.....	42,705 41
" 17	Notice of expropriation.....	"	Expropriation of land being part of sec. 10, Skinner's Cove, B.C.	Dry Dock.....	0.36 acre.....	.....
" 17	"	"	Expropriation of land being part of sec. 2, Skinner's Cove, B.C.	"	0.57 acre.....	.....
" 18	Certificate of title.....	"	Certificate of title <i>re</i> portion of bed of Howe sound lying in front of district lot 686, Map 1618, Gibson's Landing, B.C.	.....	.....	.....
" 19	His Majesty.....	Fort William Paper Co., Ltd.	Permission to carry water pipe or pipes over, under or across property, Fort William, Ont.	.....	.....	1 00
" 22	Canadian Stewart Co., Ltd.	His Majesty.....	Release for all claims in connection with plant formerly owned by Co. and for cost of maintenance and protection of said plant.	(Toronto harbour works)	.....	38,601 48
" 31	His Majesty.....	La Cie Generale du Port de Chicoutimi.	Bill of sale <i>re</i> vessel <i>Norah L.</i>.....	.....	.....	500 00

" 31.....	"	"	Bill of sale <i>re</i> vessel <i>Edward Q.</i>.....	.....	4,740 00
" 31.....	"	"	Bill of sale <i>re</i> vessel <i>D'Arcy Leamy</i>.....	.....	5,960 00

The following items were received too late for insertion in last year's Annual Report (1919-1920).

Jan. 6, 1914 ..	J. B. Clarke and wife.....	His Majesty..	Sale of land at Heustis Landing, N.B.....	Heustis Landing.....	18,275 sq. ft.....	25 00
" 31, 1919 ..	Jos. P., Jno. Thos., Jane and Margaret McKim.	" ..	Sale of land composed of lots 3 and 4, plan 1122, Toronto, Ont.	Casualty clearing station	.....	10,000 00
" 2, 1920 ..	Geo. Gounlock Estate.....	" ..	Sale of land described as lots 8, 9 and 10, south side of Ridge avenue, plan 1695, Toronto, Ont.	" ..	.....	8,000 00
" 15, 1920 ..	City of Calgary ..	" ..	Release for all claims for damages caused by installation of water main, Calgary, Alta.	.....	.....	2,468 25
Jan. 21, 1920.	Provincial Government of B.C.	Dominion Gov- ernment.	Relinquishing interest of province <i>re</i> parcel of land being portion of lot 1993 R.C. Coast district, Dodge Cove, B.C.	.....	.....	.....
" 28 ..	Jos. P., Jno. Thos., Jane and Margaret McKim.	His Majesty	Sale of land composed of lots 3 and 4, plan 1122, Toronto, Ont.	Casualty clearing station	.....	31,000 00
Feb. 8.....	The Grand Trunk Rail- way Co.	" ..	Permission granted to attach to company's swing bridge over Burlington Beach canal a footway for pedestrians.	To continue until com- pletion of new high- way bridge.	.....	.....
" 15 ..	Provincial Government of New Brunswick.	Dominion Gov- ernment.	Transfer of wharf at Red Store near St. George, N.B.	.....	.....	Free transfer.
" 15 ..	Certificate of ownership	" ..	Certificate of ownership of perpetual right to flood parcel south section, Timiskaming, township of Dymond, Ont.	Timiskaming reservoir dam.	0.71 acre.....	2,200 00
" 16.....	His Majesty ..	Canadian Na- tional Rail- ways.	Release for all future claims <i>re</i> dredging for improvement of harbour, Long wharf, St. John, N.B.	.....	.....	.....

The following items were received too late for insertion in last year's Annual Report (1919-1920).

Feb. 14, 1907. .	Notice of expropriation...	.....	Expropriation of land at Lower Ship Harbour, N.S.	Site for public wharf.	3,000 sq. ft.....	.....
" 5, 1913....	Certificate of ownership.	.....	Certificate of ownership <i>re</i> part of water lot in front of lot No. 33, block 1, plan No.3 Kenora Bay, Ont.	Subway wharf extension	.....	.....
" 6, 1920. .	Certificate of title ..	.....	Certificate of title <i>re</i> certain parcel of land and premises in sections 2 and 10, Esquimault, B.C.	Site for new dry dock...	16.31 acres.....	.....
" 10, 1920 ..	Cough and Sellers Expro- priations, Ltd.	His Majesty.	Quit claim deed <i>re</i> parcel of land composed of the easterly 10 feet from front to rear of lot No. 11, fronting on southerly limit of Ridge avenue, plan 1695, Toronto, Ont.	Casualty clearing station	.....	1 00

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1920, to March 31, 1921—*Concluded.*

Date of Conveyance	Vendors	Purchasers	Description of Property.	For what purpose.	Area	Price
1921.						
Mar. 1	The Windsor, Essex and Lake Shore Rapid Railway Company.	His Majesty	Sale of land part of lot No. 1, northerly side of Main street, Kingsville, Ont.	Public building		2,000 00
" 8	Jos. W. Fuller	"	Release <i>re</i> tracts of lands and premises composed of lots 1, 2, 3, 4, 5 and 6, block 3 of Biggar tract, Brantford, Ont.	Brantford parade ground		100 00
" 10	Certificate of ownership.		Certificate of ownership <i>re</i> tract of land and premises between May and Rebecca streets and south of Murray street, Wahbe river, tp. of Dymond, South Timiskaming, Ont.	Timiskaming reservoir dam.	1 1/2 acres.	175 00
" 10	His Majesty	Delphis Lalonde	License to operate ferry across Ottawa river, between Fassett and St. Thomas d'Alfred, Ont.	During 5 years from 1st May, 1921.)		10.00 per ann.
" 29	Certificate of title.		Certificate of title <i>re</i> portion of parish St. Charles excepting 1st—all that portion taken for a road and 2nd all that portion taken for a public roadway.	Tuxedo Park.		
The following items were received too late for insertion in last year's Annual Report (1919-1920).						
Mar. 16, 1920	The Bell Telephone Co. of Canada, Limited.	His Majesty	Permission to string wires on company's line between junction of Lake Beauport road and St. Pierre de Charlesbourg road, Que.			\$9 00 per ann.
" 18	Certificate of ownership.		Certificate of ownership <i>re</i> lot 343, plan M-79, north side of Scott street, New Liskeard, Ont.	Timiskaming reservoir dam.		175 00
" 24	Grand Trunk Pacific Development Company, Ltd.	His Majesty	Sale of land part of lot 1993, R. 5, Coast district, Digby Island, Prince Rupert, B.C.	Shipyard and quarantine station.	2.9 acres.	1 00

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1920.						
April 1.....	Palmer Motor Sales Co..	His Majesty	Lease of portion of garage premises No. 135 King st. west, Hamilton, Ont.	Mechanical Transport, S.C.R.	6 months from date of occupation.	\$1,200 per ann. (renewable)
" 1.....	Robert L. Newman (by M. M. Stephens Co., Agents.)	"	Lease of 2 adjoining rooms on 1st floor of "Stephens' Block," Prince Rupert, B.C.	Insp. of Taxation, Fin. Dept.	1 year from April 1, 1920.	\$300 per ann.
" 1.....	The Canadian Northern Ry. Co.	"	Lease of ground floor of Company's sleeping and dining car dept. building, Edmonton, Alta.	Post Office Dept.	From month to month from April 1, 1920.	\$25 per month.
" 3.....	His Majesty.....	The Upper Ottawa Improvement Co. Ltd.	Lease of all Government work, slides, piers, booms, etc., on Ottawa River and tributaries from mouth of Gatineau Riv. to Mattawa, Ont.	Private enterprise	21 years from Jan. 1, 1920..	\$1 per annum (renewable)
" 3.....	Bawlf Securities Ltd.....	His Majesty...	Lease of suite No. 251 on 14th floor of "Commerce Building", Winnipeg, Man.	Fisheries Insp., Naval Service.	13 months from April 1, 1920.	\$350 per ann.
" 5.....	J. H. Harris.....	"	Lease of 776 square feet on ground floor of three storey stone building, No. 565 Main st., Moncton, N.B.	Post Office	1 year from June 15, 1920.	\$720 per ann.
" 6.....	Nault & Lacroix.....	"	Lease of 3rd floor of 3 storey brick building, No. 50 King st., Sherbrooke, Que.	Dist. Eng., P.W.D.	1 year from May 1, 1920.	\$1,000 per ann.
" 8.....	Thomas C. Rice.....	"	Lease of building on west side of main road on south side of bridge, Weymouth, N.S.	Post Office	1 year from June 1, 1920.	\$200 per ann.
" 9.....	Wm. M. Binks, J. H. Binks and G. W. Binks.	"	Lease of room No. 512 in "new Binks Building," Montreal, Que.	Railways and Canada...	From March 15, 1920 to May 1, 1921.	\$35 per month.
" 9.....	Mrs. Margaret Henderson	"	Lease of one storey brick garage, cor. 6th Ave. and 6th st., Lethbridge, Alta.	A. & I. Unit, M. & I.	2 years from date of occupation.	\$150 per m. (renewable)
" 10.....	His Majesty.....	Walkerville-Lord G.W.V. Association.	Lease of public building property, Walkerville, Ont.	C.W.V.A. Local Br.	During pleasure from April 10, 1920.	\$1 per annum.
" 10.....	R. L. Blackburn ..	His Majesty...	Lease of 3rd floor of "Plaza Building," Ottawa, Ont.	S.C.R.	From May 1, 1920 to May 1, 1921.	\$3,650 per ann.
" 12.....	His Majesty.....	Kingcome Navigation Co., Ltd.	Lease of tug <i>Pont Gich</i>		For period of 6 months from date of delivery of tug to hirer.	\$67 per diem.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—Continued

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1920						
April 3	Brant Amusements' Ltd.	His Majesty	Lease of 2nd floor of building, cor. King and Pallkousie sts., Brantford, Ont.	S.C.R.	1 year from June 16, 1920.	\$1,400 per ann.
" 14	Grey Nuns	"	Lease of ground floor only of building No. 23 Jeanne Mance st., Montreal, Que.	M. & D.	1 year from May 1, 1920.	\$1,800 per ann.
" 14	Grey Nuns	"	Lease of part of basement of premises No. 23 Jeanne Mance st., Montreal, Que.	M. & D.	1 year from May 1, 1920.	\$700 per ann.
" 15	Wm. James Reid	"	Lease of part of 2nd floor of "Boyd Building," cor. of Edmonton and Portage Ave., Winnipeg, Man.	Ry. Commission	1 year from June 1, 1920.	\$150 per m.
" 15	Canadian Cities and Town Properties, Ltd.	"	Lease of 2,000 sq. ft. on ground floor of "York Building," Saskatoon, Sask.	Customs Examining Warehouse.	1 year from June 5, 1920.	\$1,800 per ann.
" 15	Union Bank of Canada	"	Lease of 1,050 sq. ft. in "Kerr" or "Union Bank Building," The Pas, Man.	Mining Recorder, Int. Dept.	1 year from Feb. 1, 1920.	\$50 per month.
" 17	B. C. Pitson and L. L. M. Dilsen.	"	Lease of 1,000 sq. ft. in building on lot 6, block 3, plan "C" 9, Kindersley, Sask.	H. Qts. 18th C.L.H. M. & D.	1 year from April 17, 1920.	\$600 per ann. (renewable)
" 17	Fred. W. Scott	"	Lease of rooms No. 301, 302 and 303 in "Scott Block," Winnipeg, Man.	Int. Dept.	1 year from April 1, 1920.	\$1,980 per ann.
" 17	Geo. H. Gillespie, Trustee	"	Lease of 18 rooms in brick residence No. 25 Emerald st. and use of adjoining lot, Hamilton, Ont.	S.C.R.	1 year from Mar. 11, 1920.	\$1,200 per ann.
" 17	L. H. Levasseur, Registered.	"	Lease of part of 1st or ground floor of "Levasseur Block", on Lafontaine main st., Riv. du Loup Stn., Que.	Post Office	1 year from May 1, 1920.	\$600 per ann.
" 19	F. A. Blair	"	Lease of rooms No. 403 and 404 on 4th floor of "Connaught Building," Saskatoon, Sask.	Legal Branch S.C.R.	15 months from April 1, 1920.	\$100 per m.
" 19	The Board of Trustees of Knox Church.	"	Lease of lots No. 8 and 9, block 145, Saskatoon, Sask.	M. & D.	From month to month from Mar. 1, 1920.	\$100 per m.
" 20	Corporation of City of Sarnia.	His Majesty	Lease of upper floor of 2 storey brick building at foot of George st., Sarnia, Ont.	Militia and Defence	1 year from April 15, 1920.	\$840 per ann.
" 20	Hudsons Bay Company	"	Lease of 5,800 sq. ft. in "Megaw Building," in Vernon, B.C.	S. S. Board	1 year from date of occupation.	\$100 per m.
" 21	W. A. Bauer	"	Lease of rooms 509, 510, 511 and 512 and 3 vaults on 5th floor "Pacific Building," Vancouver, B.C.	Geo. Survey Branch, Mines Dept.	6 months from June 1, 1920...	\$115 per m.
" 21	Elizabeth Rogers	"	Lease of rooms Nos. 630 to 634 inc. in "Rogers Building," Vancouver, B.C.	S. S. Board	1 year from Mar. 1, 1920.	\$102.50 per m.
" 21	Hon. A. L. Langman	"	Lease of "Fairbanks Morse Building," Calgary, Alta.	M. & D.	6 months from Jan. 1, 1920.	\$900 per m.

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"	26.....	The Bissett Company, Limited.	"	Lease of 216 sq. ft. on 3rd floor of warehouse No. 153 Lower Water st., Halifax, N.S.	Post Office Dept.....	From month to month from Mar. 18, 1920.	\$15 per month.
"	26.....	His Majesty.....	St. Maurice River Boom and Driving Company, Limited	His Majesty.....	Lease of all Government property on St. Maurice River, Que.	Private enterprise.....	For 21 years from Jan. 1, 1920.	\$1 per annum.
"	26.....	Wm. McWilliams, Inc.....			Lease of 1,123 sq. ft. on ground floor of south-erly half of brick building, cor. D'Auteuil and Elgin sts., Quebec, Que.	Supt. Dom. Arsenal (M. & D.).	1 year from Sept. 1, 1920.	\$675 per ann.
"	26.....	Quebec, Light, Heat and Power Co., Ltd.			Lease of room with 2 doors 502 and 503 on 5th floor of "Merger Building," Quebec, Que	S.C.R. Medical Clinic...	From month to month from Mar. 1, 1920.	\$62 per month.
"	27.....	H. L. Puttnam and Estate of John Withell.			Lease of basement and ground floor of "Old Stanley Church," No. 91 Stanley st., Montreal, Que.	M. & D.....	1 year from May 1, 1920.	\$6,000 per ann.
"	28.....	Canadian Northern Pacific Ry. Company.			Lease of class room in Canadian Northern Pacific Ry. Station, Vancouver, B.C.	Vocational Br. S.C.R. . .	From April 1, 1919 to Dec. 31, 1920.	\$1 per annum.
"	29.....	Army and Navy Veterans' Association.			Lease of stable No. 1952 Hamilton st., Regina, Sask.	Armouries Service Corps	From month to month.	\$15 per month (monthly tenancy).
"	30.....	The Royal Bank of Canada			Lease of rooms No. 311 and 312 on 3rd floor of "Royal Bank Building," London, Ont.	Medical treatment for returned soldiers.	for 3 months and 2 weeks from May 1, 1920.	\$888 per ann.
May	1.....	Great War Veterans' Association, Regina.			Lease of portion of 4th floor of Veterans' block, Regina, Sask	S.C.R.....	2 years from Mar. 1, 1920.	\$750 per ann.
"	3.....	Albion Motor Car Co. of Canada, Ltd.			Lease of 4,600 sq. ft. in 1-storey brick and stone building, No. 63 Prince st., Montreal, Que.	S.C.R.....	1 year from April 1, 1920.	\$4,000 per ann.
"	4.....	Bank of Montreal.....			Lease of 3 rooms in n.w. cor. of 1st floor of Bank Building, cor. King and Prince William st., West, St. John, N.B.	S.C.R.....	1 year from May 1, 1920.	\$900 per ann. (renewable)
"	4.....	Bank of Montreal.....			Lease of premises on 2nd floor of Bank of Montreal Building, cor. King and Prince William st., West, St. John, N.B.	M. & D.....	12 months from April 1, 1920.	\$700 per ann.
"	5.....	Wm. Alfred Bauer.....			Lease of room No. 508 in "Pacific Building," cor. Hastings st. west and Howe st., Vancouver, B.C.	Mines Dept.....	6 months from June 25, 1920.	\$32.50 per m.
"	6.....	Patrick Labelle.....			Lease of ground floor stores, 3 upper floors and basement of "Labelle Building," Ottawa, Ont.	Interior Dept.	1 year from April 15, 1920...	\$25,700 per an.
"	6.....	John Schultz			Lease of 3 rooms on 2nd floor of "Schultz Building," No. 37 and 39 Dalhousie st., Brantford, Ont.	Disabled (subnormal) soldiers workshop.	6 months from Feb. 19, 1920.	\$75 per month.
"	6.....	John Fiskien & Company.			Lease of room No. 114 on 1st floor of "Pacific Building," No. 23 Scott st., Toronto, Ont.	Grain Insp. Staff (T. & C.)	1 year from April 15, 1920.	\$55 per month.
"	10.....	Dominion Life Assurance Co.			Lease of rooms No. 502 to 507 inc. on 5th floor of "Westman Chambers," Regina, Sask.	S. S. Board.....	1 year from May 1, 1920.	\$2,400 per ann
"	10.....	Dominion Life Assurance Co.			Lease of rooms No. 508 and 509 on 5th floor of "Westman Chambers," Regina, Sask.	S. S. Board.....	1 year from June 1, 1920.	\$54 per month

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—Continued

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
May 11	The Corporation of Town of Granby.	His Majesty	Lease of lower and upper part of Armoury on cadastral lot No. 4454, Granby, Que.	M. & D.	1 year from May 3, 1920.	\$600 per ann.
" 11	His Majesty.	A. B. Gordon.	Lease of tug <i>Maggie "K"</i> .		From day tug is taken over in Sturgeon Falls, Ont. and to continue until tug is delivered to owner at Sturgeon Falls, Ont.	\$6 per day.
" 12	The Ogletree Motor Co., Ltd.	His Majesty.	Lease of space in garage No. 297 to 305 Barnell st., Winnipeg, Man.	"G" Unit, S.C.R.	1 year from May 1, 1920.	\$196 per m.
" 14	The J. L. Nichols Co., Ltd.	"	Lease of 2-storey brick residence and space in garage No. 184 Spadina Ave., Toronto, Ont.	S.C.R.	From month to month from June 1, 1920.	\$200 per m. (monthly tenancy)
" 14	Thomas Andrew.	"	Lease of office including use of telephone and typewriter in "Thomas Andrew Building," Summerside, P.E.I.	Voc. Br. S.C.R.	8 months from April 12, 1920 and thereafter from month to month.	\$15 per month.
" 15	David Steeves	"	Lease of premises on 2nd floor of 3-storey concrete building, George st., Moncton, N.B.	M. & D.	1 year from April 1, 1920.	\$960 per ann.
" 19	McDougal's Limited.	"	Lease of portion of 3rd floor of "McDougal Building," No. 529 Sussex st., Ottawa, Ont.	Headquarters Staff Can. Air Force.	From Dec. 16, 1920.	\$750.40 per an.
" 25	A. M. Fraser.	"	Lease of rooms, No. 204 and 205 in "Bon Accord Building," Winnipeg, Man.	S.C.R.	From May 1, 1920, to Mar. 31, 1921.	\$110 per m.
" 25	The Corporation of the City of Fort William.	"	Lease of space of 3rd floor of "City Hall Building," Fort William, Ont.	Taxation Br., Finance Dept.	From May 1, 1920, to May 1, 1921.	\$1,200 per an.
" 26	City of Edmonton.	"	Lease of "Stratheona Hospital," Edmonton, Alta.	S.C.R.	2 years from Jan. 1, 1920.	\$16,262 per an.
" 26	J. A. Humphrey.	"	Lease of vacant church and building, Humphrey's mill road near Moncton, N.B.	M. & D.	1 year from May 18, 1920.	\$900 per ann. (renewable)
" 27	Furness, Withy & Co., Ltd.	"	Lease of 3 offices in building No. 75 Upper Water st., Halifax, N.S.	S. S. Insp. (Marine and Fisheries).	1 year from Aug. 1, 1920.	\$600 per ann.

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"	27	Nanaimo City School Board.	"	Lease of 2 rooms in shed No. 3 "Agricultural Socy. Building," Nanaimo, B.C.	"	1 year from May 1, 1920.	\$10 per month.
"	28	The Royal Bank of Canada	"	Lease of rooms No. 302, 303 and 304 on 3rd floor of "Royal Bank Building," London, Ont.	"	12 months from Aug. 15, 1920.	\$1,308 per ann.
"	28	Kingston Auto Sales Co., Ltd.	"	Lease of portion of "Auto Sales Co. Building," Kingston, Ont.	"	6 months from May 28, 1920.	\$65 per month. (renewable)
"	28	Dominion Savings and Investment Society.	"	Lease of room No. 305 on 3rd floor of "Dominion Savings and Investment Society Building," London, Ont.	"	From Mar. 2, 1920, to Dec. 2, 1920.	\$25 per month.
"	29	The Executors Thistle Joint Estate.	"	Lease of store No. 204 on south side of Wellington st., Ottawa, Ont.	"	12 months from May 1, 1920.	\$50 per month.
"	29	Chas. R. Stephen and S. M. Geddes (Trustees of Stephen Estate).	"	Lease of 1st, 2nd, 3rd and 4th floors of "Stephen Building," north side of Queen st., Ottawa, Ont.	"	From June 6, 1920, to April 30, 1922.	\$8,000 per ann. (renewable)
"	29	Cowichan Agricultural Society.	"	Lease of 3 rooms in "Old Agricultural Hall," Duncan, B.C.	"	1 year from May 20, 1920.	\$100 per ann.
"	31	H. D. Bibby	"	Lease of 2,715 sq. ft. in brick building, Princess st., Kingston, Ont.	"	5 years from April 1, 1920.	\$1,500 per ann.
"	31	Dept. of Public Works	"	Lease of one room in building, Petrolia, Ont.	"	During pleasure from May 31, 1920.	\$60 per annum.

The following item received too late for insertion in last year's Annual Report.

May 12, 1919	The Canada Life Assurance Company.	His Majesty	Lease of offices No. 31, 32, 41, 42, 43 and 44 in Co's. building on east side of Prince William st., St. John, N.B.	Board of Pension Commissioners of Canada.	1 year from May 1, 1919.	\$1,300 per ann.
June 1 1920.	The Belleville Club, Ltd.	His Majesty	Lease of 2 offices on ground floor in building cor. of Bridge and Pinnacle sts., Belleville, Ont.	Weights and Measures, T. & C.	1 year from June 1, 1920.	\$900 per ann.
" 1	Samuel E. King et al.	"	Lease of premises on ground floor and basement of 3 storey brick building, n.w. cor. St. Clair and Appleton Avenues, Toronto, Ont.	Postal Stn. "L"	5 years from date of completion of premises.	\$2,100 per ann.
" 4	Wm. H. Burgoyne	"	Lease of 2nd floor rear section of "Standard Block," St. Catharines, Ont.	Voc. Branch, S.C.R.	3 months from Aug. 6, 1920.	\$100 per m. (monthly tenancy).
" 5	The Harphill Building, Ltd.	"	Lease of "Harphill Building," with vault on 1st floor, Prince Albert, Sask.	S.S. Board	1 year from May 1, 1920.	\$350 per m. (renewable)
" 7	The Estate of Mrs. D. E. Bowie.	"	Lease of rooms No. 213 and 214 on 2nd floor of "Coronation Building," No. 121 Bishop st., Montreal, Que.	S.C.R.	From April 10, 1920, to July 10, 1921.	\$1,020 per ann. (renewable)
" 8	The Otis-Fensom Elevator Co., Ltd.	"	Lease of vacant lot extending from Davie st. to a parallel line 60 ft. south of wall of building, No. 1152 Mainland st., Vancouver, B.C.	Storage of non-perishable ordnance stores.	From May 1, 1920, to May 1, 1921.	\$240 per ann.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—Continued

Date of Lease.	Lessor.	Lessees.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1920 June 9	Lester H. Higgins	"	Lease of 2,356 sq. ft. on ground floor of new concrete garage, cor. Queen and Orange sts., Moncton, N.B.	Customs and Inland Revenue.	5 years from Aug. 1, 1920.	\$2,400 per ann.
" 15	H. N. Bate & Sons Ltd	His Majesty	Lease of "Bate Building," Slater st., Ottawa, Ont.	Militia and Defence	1 year from June 15, 1920.	\$1,800 per ann. (renewable)
" 16	His Majesty	Mrs. W. R. Foster.	Lease of one room in Public Building, Dartmouth, N.S.	Pres. of Red Cross	Month to month from June 8, 1920.	\$12 per month. (in monthly tenancy).
" 18	C. J. Booth	His Majesty	Lease of 2nd floor of "Standard Building," Ottawa, Ont.	Auditor General's Staff.	1 year from April 1, 1920.	\$981.69 per an.
" 18	Yorkshire and Canadian Trust Ltd.	"	Lease of "Horse Show Building," on lots 8, 9, 10 and 11, Block 65, D.L. 185, Vancouver, B.C.	Canadian Militia	3 years from June 1, 1920.	\$3,000 1st year \$3,600 2nd year \$4,200 3rd year
" 18	His Majesty	Arch. Campbell	Lease of parcel of land facing McIsaac Pond, Inverness, N.S.	Private enterprise	During pleasure.	\$5 per annum.
" 18	"	Alex. McInnis	Lease of parcel of land facing McIsaac Pond, Inverness, N.S.	"	"	\$5 per annum.
" 18	F. A. Blain	His Majesty	Lease of 640 sq. ft. in "Connaught Building," Saskatoon, Sask.	Legal Branch S.S. Board	1 year from May 15, 1920.	\$71 per month.
" 21	His Majesty	Matthews & Scott Ltd.	Lease of parcel of land facing McIsaac Pond, Inverness, N.S.	Private enterprise	During pleasure.	\$5 per annum.
" 21	"	The Ottawa Electric Co.	Lease of small reserve on Chaudiere Island, Ottawa, Ont.	"	21 years from Jan. 11, 1918.	\$10 per annum.
" 21	Ottawa Building Co., Ltd.	His Majesty	Lease of premises composed of west half of lot 19, south side of Wellington st., Ottawa, Ont.	Interior Dept.	1 year from June 1, 1920.	\$2,560 per ann.
" 21	"	"	Lease of "Nagle Building," Wellington st., Ottawa, Ont.	Accommodation for Federal Government.	1 year from May 1, 1920.	\$2,560 per ann.
" 23	Benjamin B. Hardwick	"	Lease of brick encased two-storey building, Annapolis Royal, N.S.	Temporary Customs and Post Office.	6 months from Mar. 17, 1920.	\$660 per ann. (renewable)
" 24	His Majesty	John Grayson	Lease of piece of land 169 sq. ft., Moosejaw, Sask.	Private enterprise	21 years from June 24, 1920.	\$5 per annum (renewable).
" 26	Empire Realty Company.	His Majesty	Lease of ground and 1st floors of building, No. 851 and 853, Fisguard st., Victoria, B.C.	Voc. Training Classes, S.C.R.	6 months from Aug. 1, 1920.	\$175 per m.
" 28	His Majesty	The Pacific Cons. Co., Ltd.	Lease of tug <i>Point Hope</i>	Private enterprise	For 6 months from date tug is taken over at Vancouver, B.C., until returned to Vancouver, B.C.	\$11 per day.

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"	28	General Finance Corporation of Canada.	His Majesty	Lease of brick building No. 225 1/2 on 22nd st., Saskatoon, Sask.	Militia and Defence	2 years from Jan. 6, 1920.	\$175 per m.
"	28	Notre Dame Investment Co., Ltd.	"	Lease of room No. 306 in "Notre Dame Investment Building," Winnipeg, Man.	Asst. Dir. S.C.R.	1 year from July 15, 1920.	\$576 per ann.
"	28	Northern British Columbia Development Co., Limited.	"	Lease of ground floor with rooms Nos. 1, 2, 3, 4, 8, 9, 15 and 16 on 1st floor and rooms No. 21 and 22 on 2nd floor of "Federal Block," Prince Rupert, B.C.	Several Depts. for Federal Government.	2 years from June 1, 1920.	\$8,700 per ann.
"	29	H. B. Jefferson	"	Lease of room No. 12 in "Ross Block," Charlotte st., Sydney, N.S.	S.C.R.	From month to month from June 15, '20.	\$20 per month. (monthly tenancy).
"	30	W. G. Edge, Limited	"	Lease of 470 sq. ft. in basement of "Motor Building," Sparks st., Ottawa, Ont.	National resources—Interior Dept.	From Aug. 1, '20, to 1, 1923.	\$1,200 per ann.
July	1	Daniel Vincent Doyle	"	Lease of 2 large rooms in rear of building No. 27-29 Campbell st., Belleville, Ont.	Tax Officer, Finance Dept.	From July 1, 1920, to June 1, 1922.	\$1,026.72 per annum (renewable).
"	2	McPherson & Fullerton Bros.	"	Lease of rooms No. 501 to 512 inclusive in "Central Building," Victoria, B.C.	S. S. Board	1 year from June 1, 1920.	\$185 per m.
"	2	The Bank of Nova Scotia.	"	Lease of rooms No. 31 and 32 in "Bank of Nova Scotia Building," St. Catharines, Ont.	Insp. of Taxation	1 year from July 1, 1920.	\$720 per ann.
"	5	Comox Agricultural and Industrial Association.	"	Lease of large hall and ante room, Courtney, B.C.	Drill Hall	1 year from May 18, 1920.	\$300 per ann.
"	5	James E. Roy	"	Lease of room No. 309 on 3rd floor of "Royal Building," cor. Barrington and Granville sts., Halifax, N.S.	Archivist	1 year from Jan. 1, 1920.	\$300 per ann.
"	6	Jean Baptiste Duford	"	Lease of 1st and 2nd floors of "Duford Building," Rideau st., Ottawa, Ont.	R.C.M. Police	1 year from July 2, 1920.	\$7,225 per ann. (renewable).
"	6	McPherson and Fullerton Bros.	"	Lease of 6th floor of "Central Building," Victoria, B.C.	S.C.R.	June 18, 1920 to April 18, 1921.	\$200 per m.
"	8	John Campbell and Sarah Campbell.	"	Lease of ground floor of premises No. 81 south side of King st., London, Ont.	S.C.R.	2 years from Oct. 20, 1919.	\$540 per ann.
"	8	Anglo-Canadian Association, Ltd.	"	Lease of rooms on 2nd floor of "Cuthbertson Block," Fort William, Ont.	S. S. Board	6 months from July 1, 1920.	\$28 per month, renewable.
"	19	Enderton Investment Co., Ltd.	"	Lease of rooms Nos. 211 and 213 in "Enderton Block," Winnipeg, Man.	"	1 year from Aug. 1, 1920.	\$70 per month.
"	21	R. L. Blackburn	"	Lease of 6th and 7th floors in "Plaza Building," Ottawa, Ont.	Insurance Department & Patriotic Fund.	2 years from July 1, 1920.	\$7,600 per ann.
"	21	R. L. Blackburn	"	Lease of 5th floor in "Plaza Building," Ottawa, Ont.	B.C. Lands Branch, Interior Dept.	1 year from July 1, 1920.	\$3,600 per ann.
"	21	R. L. Blackburn	"	Lease of 4th floor in "Plaza Building," Ottawa, Ont.	International Boundary Commission.	1 year from July 1, 1920.	\$3,200 per ann.
"	22	A. W. Hawley	"	Lease of 2,042 sq. ft. in premises, Trenton, Ont.	Militia and Defence	5 years from April 1, 1920.	\$300 per ann.
"	23	A. McMillan and Wm. Cos-tain.	"	Lease of ground floor of 3-storey brick building, Toronto East, Ont.	Postal Station "H"	1 year from Oct. 1, 1920.	\$100 per mon.
"	26	The Royal Bank of Canada.	"	Lease of whole of 4th floor and 1,000 sq. ft. of basement and 2 rooms on 2nd floor of "Royal Bank Building," Ottawa, Ont.	Geographers' Branch Interior Dept.	1 year from Mar. 18, 1920.	\$4,842.04 per annum.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—*Continued*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
July 26 1920.	The Royal Bank of Canada	His Majesty	Lease of 4,000 sq. ft. on 2nd floor and 1,319 sq. ft. on mezzanine floor of "Royal Bank Building," Ottawa, Ont.	Military Service Branch Auditor General's Dept., etc.	1 year from April 1, 1920.	\$4,781 59 per annum.
" 26	"	"	Lease of 3 rooms on top floor and vault in basement of "Royal Bank Building," Ottawa, Ont.	Consulting Engineer, Railways and Canals.	1 year from April 1, 1920.	\$936 25 per annum.
" 26	"	"	Lease of rooms Nos. 1, 2, 3, 4, 7, 8 and 9 on 3rd floor of "Royal Bank Building," Ottawa, Ont.	S. S. Board, etc.	1 year from Mar. 18, 1920.	\$2,354 70 per annum.
" 26	"	"	Lease of 10 offices on 5th floor and portion of basement of "Royal Bank Building," Ottawa, Ont.	Interior Department.	1 year from April 7, 1920.	\$3,113 13 per annum.
Aug. 1	Imperial Canadian Trust Co.	"	Lease of room No. 303 in "Canada Building," Saskatoon, Sask.	Res. Physician, S.C.R.	1 year from Aug. 1, 1920.	\$53 per month.
" 2	The Royal Bank of Canada.	"	Lease of one room in basement of "Royal Bank Building," Ottawa, Ont.	Military Service Branch, Justice Dept.	From Aug. 1, 1920 to May 1, 1921.	\$11.67 per m.
" 6	The Great War Veterans' Association.	"	Lease of 3 offices in "G.W.V. A. Building," Charlottetown, P.E.I.	Medical Branch S.C.R.	From July 15, 1920 to Mar. 1, 1921.	\$34 per month.
" 16	The Royal Bank of Canada.	"	Lease of rooms Nos. 214 and 215 in "Royal Bank Building," London, Ont.	Medical treatment for soldiers.	1 year from Aug. 15, 1920.	\$765 per ann.
" 16	James H. Thompson.	"	Lease of 1,250 sq. ft. of ground floor of building fronting on 2nd avenue, Prince Rupert, B.C.	Customs examining warehouse.	3 years from Oct. 1, 1920.	\$600 per ann.
" 16	Whitmore Bros., Ltd.	"	Lease of building on lots Nos. 21, 22, 23 and 24, block 184, Regina, Sask.	Ordnance Depot, M. and D.	3½ years from May 1, 1920.	\$400 per m. from May 1, 1920, to Nov. 1, 1920, and \$600.00 per month from Nov. 1, 1920 to Nov. 1, 1923 (renewable).
" 17	Miss Gertrude B. Terrill.	"	Lease of portion of 1st floor and vault of 3 storey brick building on lot 59, Main street, Stanstead Plain, Que.	"	1 year from Aug. 1, 1920.	\$275 per ann. (renewable).

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"	20	J. A. Hallier and The Royal Trust Co. (executors of estate of late H. Aldridge.)	"	Lease of all the ground floor of "Mortlake Block," Edmonton, Alta.	Post Office Dept.	From Dec. 1, 1920 to Jan. 1, 1921.	\$450 per month
"	20	The Tribune Publishing Co., Ltd.	"	Lease of office suite No. 506 on 5th storey of "Tribune Building," Winnipeg, Man.	Interior Dept.	1 year from Aug. 1, 1920.	\$110 per month
"	20	R. H. McWilliams.	"	Lease of 16 rooms in building, Owen Sound, Ont.	Headquarters 31st Grey Regiment.	3 years from Jan. 1, 1920.	\$360 per ann.
"	20	The Ottawa Amateur Athletic Association.	"	Lease of building NW. corner of Elgin street and Laurier ave. W., Ottawa, Ont.	Militia and Defence.	1 year from April 15, 1920.	\$6,000 per ann.
"	20	His Majesty.	School Board of Roberval.	Lease of "Immigration Building," Roberval, Que.	Classes for young girls	During pleasure from Sept. 1, 1920.	\$15 per month.
"	23	Douglas Ralph Crichton (receiver for Woodcrafts, Ltd.)	His Majesty.	Lease of ground floor of Nos. 308 and 314 and ground floor and upper floor of 318 of "Woodcrafts Building," Calgary, Alta.	Interior Dept.	From Oct. 1, 1920 to April 30, 1921.	\$185 per month
"	26	The Canadian Pacific Railway Company.	"	Lease of addition to be erected to station, Regina, Sask.	Postal Station "A".	5 years from date of occupation.	\$6,712.50 per annum.
"	27	John Schultz.	"	Lease of 3 rooms on 2nd floor of "Schultz Building," Nos. 37 and 39, Dalhousie street, Brantford, Ont.	Soldiers' workshop.	Aug. 1, 1920 to June 30, 1921.	\$75 per month.
"	27	The Post Publishing Co., Ltd.	"	Lease of rooms 4a and 3 in "Post Building," Portchester street, Sydney, N.S.	Inspector of Fisheries' Naval Service.	1 year from Oct. 1, 1920.	\$36 per month.
"	27	The Tribune Publishing Co., Limited.	"	Lease of premises on 3rd floor in "Tribune Building," Winnipeg, Man.	Taxation Officer, Finance Dept.	From Feb. 1, 1920 to April 30, 1925.	\$9,960 per ann.
Sept.	8	Georgina Burrows.	"	Lease of room, also storage room, with vault in 3-storey brick building, corner Main street and 2nd avenue, Dauphin, Man.	Taxation Branch Finance Dept.	3 years from Aug. 1, 1920.	\$45 per month.
"	8	Nicholas E. O'Connor.	"	Lease of room No. 10 in "Golden Lion Block," Kingston, Ont.	Invalided Soldiers' Commission.	1 year from Oct. 1, 1920.	\$35 per mon.
"	10	J. G. Butterworth.	"	Lease of rooms Nos. 1 to 10 and vaults on 3rd floor of "Bank Street Chambers," Ottawa, Ont.	Staff of Griffenhagen.	1 year from June 1, 1920.	\$2,224.95 per annum.
"	10	Margaret Kingsmill.	"	Lease of 10-room brick residence on Talbot street, London, Ont.	Veteraft shops, S.C.R.	1 year from July 1, 1920.	\$1,200 per ann.
"	20	S. H. W. A., and H. L. P. Fleming.	"	Lease of "Fleming Home Property," Ottawa, Ont.	Convalescent Hospital for wounded or invalided soldiers.	From Nov. 1, 1919 to Dec. 31, 1920.	\$3,600 per ann.
"	20	Imperial Canadian Trust.	"	Lease of suites 601, 602, 606 and 607 in "Canada Building," Saskatoon, Sask.	Post Office Inspector.	1 year from Sept. 20, 1920.	\$2,754 per ann.
"	27	City of Charlottetown	"	Lease of one room in "Market Building," Charlottetown, P.E.I.	Publicity Agent (Immigration Dept.)	1 year from Aug. 14, 1920.	\$200 per ann.
"	27	Great War Veterans' Association.	"	Lease of 4 rooms in "G.W.V.A. Building," Charlottetown, P.E.I.	S. C. Re-Establishment	7 months from Aug. 15, 1920.	\$70 per month.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—Continued

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
Sept. 6, 1919	The Royal Trust Co. . .	His Majesty . .	Lease of Ammunition Factory, corner of Esplanada avenue and Lannes street, Mile End (Montreal), Que.	Voc. Training Branch S.C.R.	2 years from Sept. 6, 1919.	\$20,000 per an. (renewable)
1920.						
Oct. 6 . . .	Wm. Warren and C. E. Sibbald.	His Majesty . .	Lease of ground and upper floors of "Ford Garage," No. 307 Banff avenue, Banff, Alta.	Militia and Defence . . .	1 year from Aug. 23, 1920.	\$360 per ann.
" 20 . . .	D. J. Nesbitt, Sheriff . .	" . . .	Lease of ground floor of building on lot No. 39, Brighton, Ont.	Post Office	1 year from Sept. 4, 1920.	\$376 per ann.
" 20 . . .	The Gray Dort Motors, Ltd.	" . . .	Lease of 4 rooms, 2 lavatories and corridors in 2-storey brick building, corner Park and Centre streets, Chatham, Ont..	Militia and Defence	3 years from Dec. 1, 1920.	\$720 per ann.
" 21 . . .	Alex. Mullin	" . . .	Lease of ground floor and basement of premises on SW. corner of Bloor and Markham streets, Toronto, Ont.	Postal Station "E".	3 years from Aug. 1, 1920.	\$2,400 per ann.
" 20 . . .	His Majesty	Brown Corporation.	Lease of two properties "Ile Caron and Ile St. Christophe (St. Maurice River), Que.	Lumber purposes only..	21 years from Nov. 21, 1920.	(Renewable).
Nov. 1 . . .	William Mayhew	His Majesty . . .	Lease of all the ground floor of a 2-storey brick building on south side of Main street, Huntsville, Que.	Post Office	5 years from Nov. 1, 1920.	\$1,000 per ann.
" 1	The Corporation of City of Brockville.	" . . .	Lease of two rooms in "City Building," Brockville, Ont.	Inspector of Gas and Electricity.	1 year from Sept. 18, 1920.	\$15 per month.
" 1	Trustee Pension Fund (The Canadian Bank of Commerce.)	" . . .	Lease of whole of 2nd floor of "Riggs Selman Building," Pender street, West Vancouver, B.C.	Recreation room 2nd Battalion.	11 months from Nov. 1, 1920.	\$150 per month
" 6	Hon. A. L. Langman	" . . .	Lease of Fairbanks-Morse Building on 8th avenue, Calgary, Alta.	Temporary Hospital S. C.R.	From Jan. 1, 1921 to July 1, 1921.	\$900 per month and thereafter on month to month basis
" 15	Arch. Galbraith	" . . .	Lease of ground floor of building Nos. 1-9 1st avenue east, Swift Current, Sask.	Dominion Lands, Interior Dept.	1 year from Nov. 17, 1920.	\$175 per month
" 1	His Majesty	Mike Antoff.	Lease of N.E. store and back entry ground floor of Williamson Block, Edmonton, Alta.	Confectionery store	From Oct. 1, 1920 to Feb. 28, 1923.	\$150 per month

The following item was received too late for insertion in last year's Annual Report.

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19.	George William Lucas.	His Majesty.	Lease of ground floor and 900 sq. ft. of basement of building, No. 140 Danforth avenue, Toronto, Ont.	Postal Station "J"	5 years from Sept. 1, 1920.	\$3,000 per ann.
"	The Imperial Canadian Trust Co.	"	Lease of suites 512 and 513 in "Canada Building," Saskatoon, Sask.	Supt. Railway Mail Service and staff.	1 year from Nov. 1, 1920.	\$110.00 per m.
"	His Majesty.	Board of Trustees of Prince Albert Protestant School Dist. No. 3.	Lease of "Old Land Titles Property" and brick building thereon erected, Prince Albert, Sask.	Additional school accommodation.	10 years from Sept. 1, 1920.	\$15 per month.
"	"	Massachusetts-Halifax Health Comm.	Lease of piece of land at Dartmouth, N.S.	Health Centre	1 year from Nov. 26, 1920.	\$600 per ann.
"	The Canadian Pacific Railway Company.	His Majesty.	Lease of part of ground floor of baggage room Windsor street station, Montreal, Que.	Mail room	1 year from Nov. 1, 1920.	\$350 per ann. (renewable).
"	J. K. Fisk.	His Majesty.	Lease of office No. 115 on 1st floor of "Civic" No. 28 Front st. east, Toronto, Ont.	Dist. Seed Instructor (Agriculture).	1 year from Nov. 15, 1920.	\$35 per month.
"	Don Cappa	"	Lease of 8 rooms, lavatory and corridor in 3-storey brick building, Water st., St. Mary's, Ont.	Militia and Defence	1 year from Oct. 15, 1920.	\$780 per ann.
"	Canadian Bank of Commerce.	"	Lease of rooms No. 2 and 3 in "Canadian Bank of Commerce Building," with room in basement, Revelstoke, B.C.	Chief Ranger (Interior Dept.)	1 year from Dec. 16, 1920.	\$40 per month.
Dec. 1.	Adelia Louise Davis.	"	Lease of property known as "Davis House," on n.w. cor. of Seaton and Thurlow sts., Vancouver, B.C.	Militia and Defence	3 years from Dec. 1, 1920.	\$125 for 1st year. \$150 for 2nd and 3rd year
"	H. V. H. Cawthra.	"	Lease of parcel of land and premises No. 211 College st., Toronto, Ont.	Militia and Defence	3 years from Dec. 1, 1920.	\$6,000 per an.
"	Robt. Moffatt.	"	Lease of lots No. 23 and 24, block 106, Plan "C" and 2-storey frame building, No. 136 5th Ave. East, Calgary, Alta.	Storage of cars, etc., Int. Dept.	8 months from Oct. 1, 1920.	\$50 per month. (monthly tenancy).
"	Alex. J. C. McDermott	"	Lease of 3-storey brick building, cor. Langley and Broughton sts., Victoria, B.C.	Examining Warehouse.	1 year from Jan. 1, 1921.	\$400 per m.
"	Business Properties Ltd.	"	Lease of "Old Bishop Strachan School" and grounds, College st., Toronto, Ont.	Militia and Defence	5 years from Dec. 1, 1920.	\$9,123 41 per annum.
"	Joshua Samuel Jacques.	"	Lease of 2,300 sq. ft. on ground floor of property known as 92 McNab st., Hamilton, Ont.	Garage S.C.R.	6 months from Nov. 1, 1920.	\$100 per m. (renewable)
"	Thomas Culbert.	"	Lease of portion of ground floor of "Culbert Block," Merrickville, Ont.	Post Office	1 year from Jan. 1, 1921.	\$200 per ann.
"	His Majesty.	W. Bourk & Co.	Lease of Immigration Hall and site thereof cor. Pacific Ave. and 5th st., Brandon, Man.	Private purposes	6 months from Oct. 20, 1920.	\$25 per month.
"	James Alex. Yager	His Majesty.	Lease of 2,075 sq. ft. of easterly portion of ground floor and 587 sq. ft. of easterly portion in basement of building on lots 18 and 19, block 50, Swift Current, Sask.	Post Office	1 year from Nov. 20, 1920.	\$200 per m.
"	John Albert Short	"	Lease of property known as "220 Hampton st.," Winnipeg, Man.	Militia and Defence	1 year from Dec. 1, 1920.	\$50 per month.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—*Continued*

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1920.						
Dec. 15	His Majesty.	The Bell Telephone Co. of Canada.	Agreement re installation of new system of telephones for Government offices at Ottawa, Ont.		For period of 10 years.	
" 16	S. H. W. A. and H. P. Fleming.	His Majesty.	Lease of "Fleming Home Property," Ottawa, Ont.	for invalided or wounded soldiers.	6 months from Dec. 31, 1920	\$300 per m.
" 16	Notre Dame Investment Co., Ltd.	"	Lease of offices 705 to 710 inclusive in "Notre Dame Investment Building," Notre Dame Ave. East, Winnipeg, Man.	Dist. Engineer P.W.D.	1 year from Jan. 1, 1921.	\$190 per m.
" 20	Dominion Life Assurance Co.	"	Lease of rooms No. 910 and 911 at rear portion of ground floor of "Westman Chambers," Regina, Sask.	Weights and Measures (T. and C.).	2 years from Nov. 1, 1920.	\$1,200 per ann.
" 21	The Imperial Canadian Trust Co.	"	Lease of suite No. 514 in "Canada Building," Saskatoon, Sask.	Ry. Mail Service Post Office 1 apt.	1 year from Nov. 16, 1920.	\$25 per month.
" 22	H. T. Warner	"	Lease of 2 rooms on 2nd floor of "Warne Building," Digby, N.S.	Insp. of Fisheries, Naval Service.	1 year from Nov. 1, 1920.	\$200 per ann.
" 22	A. Belanger Ltd	"	Lease of building near "I.C.R." Station, Montmagny, Que.	Storing machine tools (P.W.D.).	1 year from Nov. 1, 1920.	\$50 per ann.
" 28	Corinne Hamilton (wife of Louis Bertrand.	"	Lease of piece of land being part of lot 652, Ward 3, with building, thereon erected Hull, Que.	Militia and Defence...	From Nov. 15, 1920 to May 1, 1922.	\$75 per month to May 1, 1921 and \$100 per month from May 1, 1921 to May 1, 1922.
" 29	Silas Alex. Ramsay.	"	Lease of north store premises No. 606 on 2nd st., North Calgary, Alta.	Limb factory for Invalided Soldiers Com.	1 year from Dec. 5, 1920.	\$300 per ann.
" 30	Sarah A. Batson	"	Lease one room on 1st floor of building Welchpool, Island of Campobello, N.B.	Inspector of Fisheries, Naval Service.	1 year from Nov. 1, 1920.	\$120 per ann.
1921.						
Jan. 3	Sir Rodmond P. Roblin.	"	Lease of ground floor of building, No. 103 Osborne st., Winnipeg, Man.	Postal Stn. "C"	1 year from Feb. 1, 1921.	\$150 per m.
" 3	Bawlf Securities Ltd.	"	Lease of rooms No. 231, 233 and 237 on 3rd floor and offices 208 and 220 in "Chamber of Commerce Building," Winnipeg, Man.	Room. Water Power Br., Interior Dept.	1 year from Dec. 1, 1920.	\$195 per m.
" 4	His Majesty.	J. W. McConnell	Lease of certain building (stable and garage) in rear of residence known as "Bracehead," Montreal, Que.	Garage and stable.....	1 year and 8 months.	\$180 per ann.

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" 10	The City of Verdun.....	His Majesty.....	Lease of No. 2 Fire Station, Verdun, Que.	Machine Gun Qts. (M. and D.).	1 year from Dec. 8, 1920.	\$1,000 per ann. (renewable)
" 11	His Majesty.....	The Canada Lumber and Box Co., Ltd.	Lease of rooms No. 24 and 25 on 3rd floor of "Lindsay Building," Quebec, Que.	Private purposes..	From Dec. 7, 1920 to July 30, 1921.	\$24.61 per m.
" 13	Patrick McCool	His Majesty..	Lease of 2 large rooms in building on west side of Main st. and Klock Ave., North Bay, Ont.	Hydro Electric Survey	1 year from Jan. 1, 1921.	\$40 per month
" 15	A. A. Aubin.....	"	Lease of ground floor of brick building on west side of King st., Sturgeon Falls, Ont.	Post Office.....	2 years from Nov. 1, 1920.	\$1,500 per ann. (renewable)
" 20	La Cie Champoux Ltce.	"	Lease of portion of 1st floor in 2-storey frame building, facing on Front st., L'Israeli, Que.	Post Office.....	5 years from Sept. 1, 1920.	\$360 per ann. (renewable)
" 21	The Tribune Publishing Co., Ltd.	"	Lease of room No. 410 on 4th floor of "Tribune Building," Winnipeg, Man.	Dir. of Publicity Information Bureau.	1 year from Jan. 6, 1921.	\$1,200 per ann.
" 24	Notre Dame Investment Co., Ltd.	"	Lease of rooms No. 411, 412, 413 and 414 in "Notre Dame Investment Building," Winnipeg, Man.	Voc. Br. S.C.R.	1 year from Feb. 15, 1921.	\$75 per month.
" 25	H. Albert Knight.....	"	Lease of premises being lots 1 to 8 inclusive. Block 195, with building on property excepted shed on lot 8, Regina, Sask.	Ordinance stores (M. & D.).	1 year from Oct. 1, 1920.	\$356.66 per an.
" 25	Elizabeth Rogers.....	"	Lease of rooms No. 801 to 810 inclusive and adjoining waiting room on 8th floor of "Rogers Building," Vancouver, B.C.	Chief Insp. of Fisheries	1 year from Feb. 1, 1921.	\$285 per m.
" 28	Great War Veterans' Association.	"	Lease of whole of 3rd floor of "Bank of Montreal Building," on Thames st., Ingersoll, Ont.	Signal Corps.	1 year from Nov. 1, 1920.	\$108 per ann.
" 28	Union Bank of Canada....	"	Lease of 1,050 sq. ft. in "Kerr" or "Union Bank Building," The Pas, Man.	Mining Records (Interior Dept.).	1 year from Feb. 1, 1921.	from \$50 per m.
" 29	James Henry Buchanan...	"	Lease of rooms No. 1, 2, and 3 on ground floor of "Old Colborne Hotel," Goderich, Ont.	No. 4 Section No. 1, Signal Corps.	1 year from Jan. 1, 1921.	\$360 per ann.

The following item was received too late for insertion in last year's Annual Report.

Jan., 1918.....	Wm. Jas. Southam.....	His Majesty	Lease of rooms No. 504, 505 and 506 in "Herald Building," Calgary, Alta.	Board of Pension Commissioner.	3 years from Feb. 15, 1918.	\$780 per ann.
Feb. 1921.	Mrs. Alice Maud Christie.	His Majesty..	Lease of 2-storey frame building No. 204 Wilson st., Victoria West, B.C.	Married members P.P.C.L.I. (M. & D.).	1 year from Dec. 1, 1920.	\$360 per ann.
" 2	McKenzie & Mann.....	"	Lease of ground floor and basement in 2-storey brick building on lot 11, block 49, Plan 2220, Swift Current, Sask.	Militia and Defence	1 year from Jan. 11, 1921.	\$720 per ann. (renewable)
" 4	Oro Nathaniel Volerty...	"	Lease of 1 1/2-storey building with flat roof annex, Stellarton, N.S.	Militia and Defence	2 years from Dec. 1, 1920.	\$35 per month
" 8	R. Keltie Jones and The Eastern Trust Co., ex-cutors of last will of E. J. Jones.	"	Lease of "Caverhill Hall," St. John, N.B.	Militia and Defence	1 year from Jan. 1, 1921.	\$1,500 per ann.

STATEMENT No. 3.—Properties leased to and from the Department of Canada, April 1, 1920, to March 31, 1921—*Continued*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1921. Feb. 9	His Majesty.	James R. Gillis.	Lease of parcel of land on property facing McIsaac Pond, Inverness, N.S.	Wharf and fish house....	During pleasure from Feb. 9, 1921.	\$5 per annum.
" 10	Miss Susan Straker Donkin	His Majesty....	Lease of 2 one-storey bungalows, No. 484 Head st. and 515 Gore st., Esquimalt, B.C.	Married members P.P. (M. & D.).	6 months from Nov. 18, 1920.	\$15 per month. (monthly tenancy).
" 10	Miss Susan Straker Donkin	"	Lease of one bungalow No. 509 Gore st., Esquimalt, B.C.	Married members P.P. (M. & D.).	6 months from Nov. 18, 1920	\$15 per month (monthly tenancy).
" 14	The Regina Exhibition Board.	"	Lease of 23,500 sq. ft. in "Exhibition Building," Regina, Sask.	Storage of Ordnance vehicles (M. & D.).	From Nov. 15, 1920 to June 15, 1921.	\$250 for whole period.
" 15	Patrick Labelle	"	Lease of whole of 1st and 2nd floors and 4,500 sup. ft. of basement in "Labelle Building," Ottawa, Ont.	Artillery stores (M. & D.).	3 years from Feb. 2, 1921.	\$11,500 per an.
" 15	Patrick Labelle	"	Lease of 1,600 sq. ft. on ground floor and 456 sq. ft. of basement in "Labelle Building," Ottawa, Ont.	Survey Records and School Lands Branch, Interior Dept.	3 years from Feb. 2, 1921.	\$3,000 per ann.
" 15	Patrick Labelle	"	Lease of "Garage Building," in rear of "Labelle Building," Ottawa, Ont.	Several branches of Fed. Govt.	3 years from Feb. 2, 1921.	\$2,448 per ann.
" 17	Charles Wm. Frederick	His Majesty..	Lease of ground floor of one storey frame building on lot 6, block 2, plan 4209, Peace River Crossing, Alta.	Post Office.....	3 years from Jan. 14, 1921.	\$900 per ann.
" 21	Ottawa Building Co., Ltd	"	Lease of building northeast corner of Metcalfe and Slater streets, Ottawa, Ont.	Reclamation Service, Interior Dept.	5 years from May 1, 1921.	\$5,858 40 per annum.
" 23	Patrick Fournier	"	Lease of 3,590 sq. ft on top floor of 3-storey concrete block, corner Court and Canada streets, Edmundston, N.B.	Militia and Defence.....	1 year from Jan. 27, 1921.	\$90 per month.
" 24	Army and Navy Veterans Association.	"	Lease of one storey frame building on west 1/2 of lot 10, block 2, plan "G," Rosetown, Sask.	"	1 year from Jan. 1, 1921.	\$300 per ann. (renewable).
" 28	Sun Life Assurance Co. of Canada.	"	Lease of part of ground floor of "Sun Life Building," Sherbrooke, Que.	S. S. Board	1 year from May 1, 1921.	\$20 per month.
" 28	"	"	Lease of part of ground floor of "Sun Life Building," Sherbrooke, Que.	"	1 year from May 1, 1921.	\$900 per ann.
" 28	Wm. Jackson Hopwood, liquidator of Hopwoods, Limited.	"	Lease of 3 rooms on ground floor of premises No. 366 Water street, Peterborough, Ont.	Weights and Measures (F. and C.)	1 year from Jan. 1, 1921.	\$300 per ann.
Mar. 2	The Executors Thistle Joint Estate.	"	Lease of store No. 204 on south side of Wellington street, Ottawa, Ont.	Gas and Electricity Branch (F. and C.)	1 year from May 1, 1921.	\$50 per month.

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"	2	Notre Dame Investment Co., Ltd.	"	Lease of west 1/2 of 4th floor of "Keewayden Building," Winnipeg, Man.	S.C.R.	1 year from Jan. 1, 1921.	\$2,100 per ann.
"	3	L. H. Levasseur, Registered.	"	Lease of part of 1st or ground floor of "Levasseur Block," Rivière du Loup Station, Que.	Post Office	1 year from May 1, 1921.	\$600 per ann.
"	4	Le Conseil Municipal du Village de St. Eustache.	"	Lease of part of 1st floor of "Municipal Building," St. Eustache, Que.	"	3 years from Jan. 1, 1921.	\$360 per ann.
"	4	Chester Thompson Co., Limited.	"	Lease of whole of 1st floor of "Thompson Building," Saskatoon, Sask.	Customs Dept.	1 year from Dec. 12, 1920.	\$4,800 per ann.
"	5	Edmund Wood Clark.	"	Lease of dwelling house and premises No. 12 west side of Emmett street and south of Lisgar street, Ottawa, Ont.	Militia and Defence	1 year from May 1, 1921.	\$51.60 per m.
"	7	The Central Realities Co., Ltd.	"	Lease of brick fireproof building and vault on 1st floor of "Harphill Building," Prince Albert, Sask.	S. S. Board	6 months from May 1, 1921.	\$350 per m.
"	7	Mrs. Odile Lavoie.	"	Lease of portion of building, No. 116 Letourneux street, Maisonneuve, Que.	Postal Station "M"	1 year from May 1, 1921.	\$720 per ann.
"	9	Wm. Alfred Bauer.	"	Lease of rooms Nos. 508 to 512 inclusive and 3 vaults on 5th floor of "Pacific Building," Vancouver, B.C.	Geo. Survey Branch, Mines Department.	1 year from Dec. 25, 1920.	\$180 per month
"	10	His Majesty.	Delphis Lalonde	License to operate ferry across Ottawa river between Fassett and St. Thomas d'Alfred, Ont.		5 years from May 1, 1921.	\$10 per annum.
"	10	The Estate of late Margaret Cowan.	His Majesty.	Lease of building known as "Federal Building," on northeast corner of Sussex and Besserer streets, Ottawa, Ont.	Board of Pension Commissioners of Canada.	1 year from April 1, 1921.	\$6,500 per ann.
"	10	MacLaren Hall Committee.	"	Lease of "MacLaren Hall Building," Sinclair street, Alexandria, Ont.	Post Office and Customs, etc.	6 months from Mar. 10, 1921.	\$45 per month (renewable).
"	10	The Community of Sisters of Charity commonly called "Grey Nuns General Hospital."	"	Lease of ground floor and part of basement in one storey brick building, No. 23 Jeanne Mance street, Montreal, Que.	Militia and Defence.	From May 1, 1921 to April 30, 1922.	\$225 per m.
"	11	J. Hargrave and F. O. Sissons.	"	Lease of ground floor and basement in "Quebec Bank Building," Medicine Hat, Alta.	"	1 year from Dec. 28, 1920.	\$1,500 per ann.
"	12	Ottawa Building Co., Ltd.	"	Lease of "Nagle Building," Nos. 98-100 south side of Wellington street, Ottawa, Ont.	Office accommodation for Federal Government.	1 year from May 1, 1921.	\$2,560 per ann.
"	14	Mills Brothers.	"	Lease of 4th floor of "Imperial Building," Hamilton, Ont.	Inspector of Taxation, Finance Dept.	3 years from Dec. 1, 1920.	\$350 per month (renewable).
"	14	John Fiskien & Co.	"	Lease of room No. 114 on 1st floor of "Pacific Building," No. 23 Scott street, Toronto, Ont.	Grain Inspection Staff	1 year from April 15, 1921.	\$55 per month.
"	15	Municipality of Collingwood.	"	Lease of 2 rooms in SE. corner of "Town Hall," Collingwood, Ont.	Militia and Defence.	1 year from Mar. 1, 1921.	\$120 per ann.
"	16	Thos. B. and D. J. Riley	"	Lease of one front room and two offices on 2nd floor, etc., of "Riley Building," Charlottetown, P.E.I.	S. S. Board.	1 year from Mar. 1, 1921.	\$900 per ann.
"	16	The Post Publishing Co., Ltd.	"	Lease of room No. 5 in "Post Building," Dorchester street, Sydney, N.S.	Sub-Agent Marine and Fisheries.	1 year from May 1, 1921.	\$216 per ann.
"	18	Banque Hochelaga.	"	Lease of ground floor of building, 1128 East Mount Royal street, Montreal, Que.	Delorimier Postal Station.	1 year from May 1, 1921.	\$1,080 per ann.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, April 1, 1920, to March 31, 1921—*Continued*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1921. Mar. 18.....	Pheasey and Batson.....	His Majesty	Lease of 350 sq. ft. in rooms Nos. 201 and 202 on 1st floor of "Alexandra Block," Edmonton, Alta.	Weights and Measures...	2 years from April 1, 1921.	\$55 per month (renewable).
" 18.....	His Majesty.....	The Mead Investment Co.	Lease of strip of land fronting on turning basin, Fort William, Ont.	Private purposes.....	1st 3 years for balance of term	\$2,812.50 and 3,750 (renewable).
" 19.....	J. Henry Peters.....	His Majesty....	Lease of 4 floors and basement of Nos. 54 and 56 and 3rd and 4th floors of No. 52 on north side of Wellington street, Toronto, Ont.	Temporary Customs House.	2 years from Mar. 1, 1921.	\$18,000 per an.
" 22.....	His Majesty.....	E. V. Dodge....	Lease of post office property at Cardinal, Ont.	Private purposes.....	During pleasure from Mar. 22, 1921.	\$24 per ann.
" 22.....	Fred. W. Scott.....	His Majesty....	Lease of rooms Nos. 301, 302 and 303 in "Scott Block," Winnipeg, Man.	Chief Inspector Dominion Lands Agencies, Interior Dept.	From April 1, 1921 to Dec. 31, 1921.	\$180 per m.
" 22.....	Arthur M. Fraser.....	"	Lease of rooms Nos. 204 and 205 in "Bon Accord Building," Winnipeg, Man.	S.C.R. Dept.....	1 year from April 1, 1921.	\$140 per m.
" 22.....	Notre Dame Investment Co., Ltd.	"	Lease of room No. 305 in "Notre Dame Investment Building," Winnipeg, Man.	Dental Clinic S.C.R.....	6 months from Feb. 15, 1921.	\$75 per month (renewable).
" 26.....	Belgo-Canadian Realty Co., Ltd.	"	Lease of whole of 2nd floor of "Westmount Commercial Building," 1215 Greene ave., Westmount, Que.	Militia and Defence.....	1 year from May 1, 1921.	\$1,500 per ann.
" 31.....	Bryson Realty Company, Ltd.	"	Lease of 4 floors above ground floor in "Bryson Building," 178 Queen street, Ottawa, Ont.	Dominion Parks Branch, Interior Dept.	5 years from April 25, 1921.	\$9,240 per ann.

THE NATIONAL GALLERY OF CANADA

By Eric Brown, Director

Work on the reconstruction of the premises, which had been occupied by the House of Commons since February, 1916, was commenced early in the summer. The eastern door of the Victoria Memorial Museum building was made the main entrance to the National Gallery; the ground floor was arranged as a sculpture court, and the second, third and fourth floors were re-arranged so as to make some fifteen picture and print galleries. In order to give the National Gallery control of its own heating and ventilation, the east wing was separated from the rest of the museum building by means of fireproof partitions.

The work was pushed as rapidly as possible and plans were made for the reopening of the gallery in midwinter, but unfortunately, before the work could be completed, the appropriation was exhausted and it will not be possible, therefore, to open before the early autumn.

The appropriation made for the fiscal year was \$20,000, which was expended as follows:—

Accessions.. . . .	\$11,866 00
Salaries and wages.. . . .	2,941 00
General maintenance and extra expense incidental to reconstruction..	5,175 26
Unexpended.. . . .	17 74
	<hr/>
	\$20,000 00

The Canadian War Memorials' paintings and other works of art which have been in the custody of the National Gallery since the close of their exhibition tour were formally handed over to the Canadian Government by Lord Beaverbrook. Work will be commenced at once to renovate and restore them to good condition.

The loan exhibitions, which have been a feature of the work of the gallery for the past six years, were continued this year undiminished and with gratifying results. The following cities were served during the year:—

- Kingston, Ont.—Queen's University (2 exhibitions).
- Hamilton, Ont.—Art Gallery (13 pictures).
- Collingwood, Ont.—The Public library (10 pictures).
- Windsor, Ont.—The Public library (11 pictures).
- Port Arthur, Ont.—The Public library (8 pictures).
- Fort William, Ont.—The Public library (13 pictures).
- Regina, Sask.—Regina College (17 pictures).
- Winnipeg, Man.—The Art Gallery (21 pictures).
- Moose Jaw, Sask.—The Public library (18 pictures).
- Saskatoon, Sask.—Collegiate Institute (9 pictures).
- Medicine Hat, Sask.—Public library (10 pictures).

As no issue of the catalogue has been made since 1915, a new edition was prepared this year and awaits the reopening of the galleries before being offered for general distribution.

The following additions were made during the year by gift or purchase:—

PURCHASES

Oil Paintings—

" Mary and Guido "	by George Spencer Watson.
" Pastoral "	" Maurice Greiffenhagen, A.R.A.
" Shacks "	" Lawren Harris.
" Fire Swept, Algoma "	" Francis H. Johnston, A.R.C.A.
" Night, Georgian Bay "	" A. Y. Jackson, R.C.A.
" The Edge of the Wood "	" F. Nicholas Loveroff, A.R.C.A.
" Maison de Cavalier de la Salle "	" Georges Delfosse.
" The Day Turns Ghost "	" W. M. Barnes.
" Fishermen, Lake Ontario "	" Manly MacDonald, A.R.C.A.
" The Green Balloon "	" Emily Coonan.
" Lake Traffic "	" Peter C. Sheppard.
" The Last Gleam "	" Fred S. Haines, A.R.C.A.
" Abraham Dismissing Hagar "	" Le Nain.
" The Solemn Land "	" J. E. H. MacDonald, A.R.C.A.
" Summer Evening "	" W. J. Wood.
" John "	" F. H. Varley.
" Dufferin Terrace "	" Mary E. Wrinch.

Water Colours—

" A Water Baby "	by Walter J. Phillips.
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Prints, Etchings and Drawings—

7 Lithographs	by Fitzgerald E. Spencer-Pryse.
2 Etchings	" Mary Cassatt.
7 Drawings	" Frank Brangwyn, R.A.
1 Silverpoint drawing	" Leonard J. Smith.
16 Colour prints	" Charles Bartlett.
4 Colour prints	" Walter J. Phillips.
2 Colour aquatints	" Fred S. Haines, A.R.C.A.
11 Colour prints	" Mabel E. Royds.
3 " "	" J. E. Platt.
1 " "	" Hilda Porter.
8 " "	" William Giles.
1 " "	" A. M. Shrimpton.
1 " "	" Dorothy Hutton.
1 " "	" Ada L. Collier.
7 " "	" Allan W. Seaby.
2 " "	" Ethel Kirkpatrick.
2 " "	" Janet Fisher.
4 " "	" Robert Gibbings.
1 Etching and aquatint	" E. L. Lawrenson.
1 Colour print	" Amedee Joyau.
2 Drawings	" I. Duncan.
6 Colour Etchings	" Bernard de Monvel.
25 Etchings	" Charles Henry White.

Sculpture—

" Son Meilleur Jouet "	by Katherine E. Wallis.
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